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Relationship to Place: Coping with Significant Changes in Landscapes

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Introduction

Over the last decade, research grounded in the concept of place (or relationship to place) has become a focal point for those seeking ways to generate an understanding of human relationship to landscapes in a manner consistent with an ecosystem management paradigm (Galliano and Loeffler, 1999; Kusel, 1996; Stedman, 1999; Williams and Stewart, 1998). The concept of place recognizes that the meanings of specific geographic areas or landscapes extend beyond just physical features and arise through personal and social interaction associated with those areas. Sense of place consists of the emotional and symbolic meanings, images, and traditions associated with a place and can play an important role in defining individual, community, and cultural identity. This concept tends to emphasize holistic relationships to forest landscapes as unique places in contrast to characterizations of forests as collections of desired features or attributes.

Place has risen to prominence in natural resource discussions in part as a consequence of three factors. One factor was the outcome of reviews and critiques of Forest Service land management planning after two decades of NEPA and NFMA driven process, which indicated that, despite sincere efforts to implement changes in planning required by this legislation, the resulting process was still largely a rational, systematic, and technical approach to addressing social and political problems that were ultimately neither systematic nor technical in nature (Larsen et al., 1990; Shands et al., 1990). A second factor was the emergence of social constructionism as a significant conceptual paradigm in human dimensions of natural resource research. This paradigm conceives of the relationship between humans and their environment in a way fundamentally different from the aesthetic and opportunity structure paradigms that had previously dominated human dimensions research. This social constructionist paradigm has provided important guidance in alternative ways of viewing, understanding, and empirically describing this relationship. A third factor that has influenced the ascendance of place is the shift to an Ecosystem Management paradigm in Forest Service and natural resource planning. Central concepts underlying the shift to Ecosystem Management include a focus on systems, processes, and relationships. The study of social constructions and place can be viewed as a parallel shift in emphasis in the social sciences that offers new and important opportunities for integrating social dimensions into natural resource planning.

Within human dimensions of natural resource management, place-based research has focused on a variety of topics ranging from place attachment to identifying and mapping special/significant places to developing measures of sense of place as an indicator of community sustainability. Explicit or implicit in much of this research is the idea that notions of "substitutability" of areas with equivalent tangible attributes underlying traditional rational and commodity driven approaches to resource planning are often misguided. Instead, the contemporary concept of place suggests certain places are endowed by individuals and/or communities with meaning that make them unique places without substitutes and that failure to understand and address this has been a significant source of conflict in Forest Land planning in the 70's and 80's. Recently, Stedman (1999) suggested a variation on this theme, asserting that "sense of place is an inherently change aversive construct, oriented toward preserving established meanings against rapid social change." Though seemingly a logical and subtle extension of the ideas on substitution underlying earlier discussions of place, characterizing place as a "change aversive"

phenomenon offers a different perspective from which to consider the fundamental questions to be addressed within a place-based paradigm in relation to ecosystem management and natural resource planning. From this vantage point, the question of what constitutes a change in place becomes a central question and a possible source of tension between current "science-driven" policy trends within ecosystem management which emphasize maintenance of ecological processes and interactions and a place-based public's perspective (if they conceive of place in terms of static landscape features or states which they do not wish to see changed). Thus, while the concept of place to this point has typically been portrayed as a complimentary perspective to ecosystem management (Galliano and Loeffler, 1999) managing for human sense of place may at times conflict with "science-based" ecosystem principles. Also given the dynamic character of nature; the trend toward managing according to ecosystem principles that focus on processes and maintaining natural interactions rather than static states or landscape features; and, at times, the inherent necessity of choosing among contested meanings of place, another central question that emerges from adopting a "change aversive" perspective is the question of how people cope with changes in the physical character of places.

Questions related to the measurement of relationship to place in a way that can be integrated into forest planning remain unresolved issues. Recently Stedman (1999) argued that if sense of place concerns are to enter debates about forest planning "they need to be more systematized and considered quantitatively" (Stedman, 1999:768). In contrast, others maintain that qualitative approaches are the more appropriate form of measurement for some place related concerns, especially when seeking to overcome shortcomings associated with traditional NEPA/NFMA models (Brandenburg et al. 1995; Shannon, 1981).

Ultimately, the choice of methods should be driven by assumptions about the nature of the phenomenon being studied and the nature of the specific questions motivating the research (i.e., the research goals). With respect to assumptions about the phenomenon being studied, relationship to place has been conceptualized as a holistic system of meanings, values, and relationships arising through individual and social interactions. With respect to a study of relationship to place, one of the chief goals is to provide a holistic characterization of relationship to place in a manner that helps forest planners understand noneconomic dimensions of forest dependence. Measurement approaches must therefore provide an opportunity to represent an holistic rather than a multivariate phenomenon, while at the same time accommodating differences in the way individuals communicate about these issues and providing an opportunity to negotiate the meaning of questions/responses. Given the qualitative nature both of the assumptions about relationship to place and the research goals, the contention underlying this proposal is that this type of understanding is best achieved by a qualitative rather than quantitative approach. While there is a growing body of research using qualitative methods, much work remains to establish qualitative research protocols, to build understanding and receptivity to qualitative research in the natural resource planning (which still is predisposed toward quantitative forms of research), and to enhance the rigor and scientific character of qualitative research.

Goals and Objectives

While place has emerged as a prominent construct within human dimensions of natural resource management over the last decade, significant research questions remain. Most previous work has focused on issues characterizing the intensity of relationship to place, identifying and mapping special places, or exploring how place meanings arise or are constructed. However, little research has focused on issues related to how people are impacted by changes in valued places, how people cope with those changes, and how these issues might be related to forest planning. The purpose of this research is to approach questions of relationship to place from this latter perspective. Looking at place change and, potentially, loss of place could reveal insights into relationship to place which may not be readily apparent by research focusing on place construction and place definition. Additionally, this focus may reveal insights into possible tensions between place (which Stedman (1999) characterized as a "change aversive" concept) and ecosystem management as defined by contemporary biological scientists who emphasize the dynamic nature of ecosystems and ecosystem processes rather than static landscape states or features.

This project is an exploratory effort to provide the foundation for a more comprehensive research effort to address these issues. The objective of this project is to determine if it is possible to develop a "standard" qualitative research protocol that can be used to provide an understanding of relationship to place in areas where forest landscapes have recently experienced catastrophic events (extensive damage due to storms, fire, etc.) for use by different researchers collaboratively studying this phenomenon in different places or regions. The possibility of establishing a standard research protocol represents an interesting challenge to qualitative research conducted according the research logic described below due to the emergent nature of the interview and analysis processes.

Methods

Research Approach

The research questions underlying this study required a research protocol capable of providing an empirically based, in-depth understanding of the constellation of beliefs, values, meanings, traditions, and culture that characterize an individual's relationship to, and "loss" of, place. For these types of research questions, hypothesis testing is not the appropriate testing logic. (A testing logic refers to the system of logic describing the relationship of data to research concepts [Schrader-frechette and McCoy, 1994]). Instead the appropriate testing logic for the nature of inquiry underlying this research is an interpretivist one in which there is a more dialectic interplay between theory and data over the course of the study (Mishler, 1990). A more specific explanation of the interpretivist testing logic that guided this study is presented in the following sections on data collection and data analysis.

Data Collection

Two schools of thought are evident with respect to how to conduct interviews for this type of research. The first has been described as a stimulus response model that treats interviewer questions "as a standard research stimulus ... to remain constant so that any variance in the response can be attributed to factors in the interview population"

(Mishler 1986; Polkinghorne, 1988:176-177). This model was not considered appropriate for this study due to the nature of the issues being studied (systems of meaning and the nature of experiences which may be highly variable across individuals), differences in the way individuals communicate about these issues, and the need to negotiate the meaning of questions/responses in a way that defies the opportunity for precise a priori specification.

The second school of thought is consistent with this perspective. It reflects a constructivist model in which the interview is conceived as a "directed conversation" (Charmaz, 1991). Under this model, the interview structure is variable to accommodate the way a respondent understands, structures, and communicates about phenomena. The role of the researcher is to lead the respondents to discuss certain themes without directing them to express specific meanings (Kvale, 1983) and to do so in a way that is adaptable to the way the respondent thinks and communicates while at the same time remaining systematic and focused enough to cover relevant and comparable (across interviews) information. In practice, interviewers seek to achieve this end by developing an interview guide that consists of a list of the research themes to be explored as well as multiple lead-in questions that could serve to initiate a discussion about those themes. The phrase "interview guide" is used rather than "interview schedule" to emphasize the flexibility in conducting the interview. Themes are pursued when relevant during the emergent course of the interview. Also the list of questions are seen merely as a guide because the use of contextual follow-up probes that emerge in response to features of the on-going conversation is necessary in order to obtain adequate responses.

Following the interview guide approach, each interview has a unique structure. However, because the interview guide ensures that equivalent/comparable information is explored across interviews and because individual-level analysis serves as the foundation for all subsequent across individual analyses (rather than beginning analyses at an aggregate level), this variation across interviews is acceptable and accommodated in the approach to analysis described below.

Finally, the data collection process described below is based on a rigorous, iterative, and prolonged exploration of parts of a given interview in relation to the whole interview (and set of interviews). Under this approach, individual words; specific phrasing; and sometimes even tone of voice may become highly significant. Further deeper meanings of comments not apparent during the course of the interview or from an initial reading of interviews may emerge under more rigorous analysis. A thorough, accurate, and permanent database is essential. During the interview process it is not possible for the interviewer to record the necessary detail and nuances, therefore interviews were tape-recorded and transcribed. Both the transcriptions and original tapes serve as the empirical basis for data analysis.

Data Analysis

Analysis of qualitative data collected using the logic described above centers around the development of an organizing system (Tesch, 1990). The purpose of an organizing system is to identify predominant themes through which interviews can be meaningfully organized, interpreted, and presented. The process of developing an organizing system is the "analysis" while the final organizing system is the product of the analysis (Patterson et al., 1998). This "organizing system" approach is fundamentally

different than a "content analysis" approach that proceeds by developing a system of categories into which data are coded (an approach frequently associated with qualitative analysis). A successful final organizing system promotes a more holistic understanding of the phenomenon by showing the inter-relationships among themes.

The development of an organizing system is a systematic process beginning with the identification of meaning units (segments of the interview that are comprehensible on their own; these represent the data or basic unit of analysis), followed by the identification of themes (these represent the researcher's interpretation of what one or more meaning units reveal regarding the phenomenon being studied) into which the meaning units are ultimately coded, and ending with an analysis of the interrelationship among themes. Each interview is analyzed individually first, then a subsequent phase of nomothetic analysis (across individual interviews) is conducted. The development and coding of interviews at the individual and nomothetic level is an iterative and rigorous analysis process that entails continual re-reading of the interviews during the course of the analysis. Qualitative analysis software (QSR NUDIST) was used to facilitate the analysis. This software was used simply as a means for indexing, coding, and retrieving textual units, it does not conduct the analysis in the sense that quantitative software does.

Sampling

The empirical portion of this study represents a pilot test in an attempt to develop a standard protocol for a qualitative data collection strategy capable of providing a sufficiently rigorous and systematic understanding to permit the development of a knowledge base. A small number of pilot interviews (13) were be conducted in Ely Minnesota in January 2002. The July 4 storm of 1999 that created significant changes in the landscape in an extensive swath of land in the Boundary Waters Canoe Area made this selection of study sites appropriate as significant changes in the natural landscape occurred as a consequence of the storm. Also, the high degree of concern about fire danger, and restrictions on use of fire by visitors within the area made it possible to explore public reactions to this issue as well. In selecting respondents we sought individuals with a strong bond to the place under the assumption that if a sense of loss was not evident among these individuals, it would not be evident in a more general population. Also, while we sought individuals with a wide range of backgrounds, we emphasized outfitters and others who interacted with the user population in hopes that they might be able to provide some insight into how the larger population of users might be responding to the storm. (In retrospect these individuals never characterized the publics reaction as different from there own unless it was to note that three years later, first time users were not likely to realize that there had been in problem at all.)

Results

The study results are presented in four sections. The first section is a nomothetic or "across individuals" analysis and discussion of the data. It focuses on the central dimensions and themes that describe the nature of the phenomenon being studied rather than on specific individuals. The discussion of themes is guided by the organizing system that emerged as the basis for interpreting and presenting the results. Analysis suggested that two different organizing systems could be used to present the results, one

organized around the theme of loss and the other around "dialogs about nature" versus "dialogs about humans." The first organizing system was more strongly related to the study goals and provided a more coherent basis for understanding the way respondents navigated the meaning of the storm and perceived losses. Therefore the "across individual's" analysis section employs this organizing system. Within this section, three distinct but overlapping dimensions are discussed: sense of loss, underlying frame of reference used to understand and deal with the effects of the storm, and the deeper meanings of the storm.

The second section of the results is comprised of 13 tables corresponding to each of the 13 individuals interviewed in the course of the study. The tables are referenced in the "across individuals" results section of the report to help provide an understanding of the underlying themes. But the tables also represent a separate and distinct idiographic level analysis and presentation of the data. They contain a discussion of each interviewee's responses in relation to the three dimensions of the organizing system discussed in the first results section. While there were often similarities in how individuals reacted to, and mentally dealt with, the storm, as suggested by the dimension "underlying frame of reference" there was also a great deal of variation in how individuals mentally navigated the meaning of the storm. The tables allow readers to gain a better understanding of the nature of this variation across individuals and how themes underlying their responses to the storm are interrelated. Also included are short discussions relative to the second organizing system (dialog about nature and dialog about humans) which, at times, may reveal insights not addressed explicitly in the first organizing system.

Although some data (in the form of excerpts from the interview) are presented in the first two results sections, these sections emphasize the interpretation. The purpose of the last two sections of the results is to provide the reader access to the data. The third section provides an overview of the relevant contents of each interview. This overview includes more themes than were incorporated into the final organizing systems, makes more extensive use of interview excerpts to support the interpretation, and is cross referenced to the actual interviews themselves to provide the reader complete access to the data and basis for the interpretations. In electronic versions of this report, these overviews are "linked" to the original interviews so the reader can move back and forth between the actual data and the interpretation of the data presented in the interviews using Microsoft Word's "hyperlinks" capabilities.

Nomothetic Analysis

Sense of Loss

There was variation in how the individuals interviewed responded to the storm with respect to the theme of loss. At a nomothetic level, respondents seemed to fall into five different groups in terms of their reaction to the storm relative to a sense of loss. The order in which the Tables summarizing individual interviews is presented was determined by the apparent intensity of loss respondents felt in response to the storm.

The first group consisted of the three individuals whose responses across the interviews indicated not only that they did not experience a sense of loss, but also that they viewed the storm in a highly positive light. One of these respondents stated that nothing has been lost and that it was good for his business (a motel/resort) (Table 1). A second respondent (Table 2), though noting the adverse affects on the appearance, "loved

it because I thought that it would be so ugly the tourists wouldn't like it any more." The third respondent in this group (actually a logger and his son - Table 3) also commented on the visual impact. However the father thought it was "kind of fitting" for the storm to hit the Boundary Waters and hoped it "keeps blowing" on the federal lands at least.

The second group of respondents with respect to "sense of loss" were two respondents for whom loss was really not a theme in their reaction to the storm (Tables 4, 5). The third group of respondents with respect to sense of loss was comprised of individuals in two interviews for whom the storm inspired a sense of awe for the power of nature rather than a sense of loss (Tables 6, 7). One of these interviews was with a husband and wife showed somewhat different reactions. The husband described the sense of awe. In contrast, the wife expressed an initial feeling of loss that was ultimately resolved in a more positive way, a reaction more consistent with the next group of respondents (Table 7).

This group consisted of individuals in five interviews who, like the wife just discussed, struggled with initial feelings of loss (Tables 8, 9, 10, 11, 12). These feelings of loss varied somewhat in the intensity with which they were described ranging from a feeling of loss (Table 8) to a feeling of being "very, very sad" (Table 10) to a feeling of personal and profession devastation (Table 11) to an initial feeling of sickness (Table 12). It is possible in some cases though, that some of the apparent variation in intensity may reflect the respondents' ability or willingness to express these feelings as much as the true intensity of the feelings themselves. Despite the initial feelings of loss expressed by respondents in this group, ultimately these feelings were largely resolved and replaced with more positive outlooks which are described in some depth in the sections on "underlying frame of reference" and "meaning of the storm."

The final grouping actually contains a single individual (Table 13). This individual differed from the other respondents in two ways. The first was the depth at which he described and experienced the sense of loss. He had lost his mother at about the same time and he made this comparison: "the storm affected me as much if not more. And my mother passing away was a big deal and it hit me hard." Further, he indicated that there are places that were once special to him that were so damaged by the storm that he has no more interest in visiting them anymore. The second way he differed from the other respondents was in regard to his ability to find a positive resolution to the loss. Although he indicated it had taken him two years to get over it, but he was pretty well over it, he appeared to be referring to the intensity and mental struggle that often accompanies deep loss rather than the ability to find a positive message or see positive outcomes as other respondents were able to.

Underlying Frame of Reference

The interviews suggested that respondents interpreted the storm; its outcomes; and, when necessary, navigated and sought to resolve feelings of loss according to an underlying frame of reference constructed across the course of their lives. Often these underlying frames of reference included more than one dimension and in some cases frames which are similar at a broad level of classification (e.g., storms as a part of nature) led to very different meanings (discussed in the following section) and/or different ways of resolving the situtation (for example whether there was even an initial feeling of loss. These factors complicate the ability to adequately characterize the underlying frames at a nomothetic level. In other words, in many ways this theme is best understood through

the idiographic level analysis presented in the Tables themselves rather than through a nomothetic scale analysis.

Across interviews, frames used by respondents to understand the storm and its effects fell into five major themes, some of which has also had related subthemes or variations. The most prevalent theme used to frame the situation was a view of nature as something that is dynamic and cycles between disturbance and renewal. In fact this major theme was evident in all interviews, although it did not appear to be a basis for resolving the issue for two respondents. The first exception was the "wife" (Table 7) who employed instead a frame discussed below. However, this theme was evident in the husband's response. The other exception was the respondent in Table 13. He considered this theme as a basis for resolving his feelings of loss, but ultimate rejects this as a basis for frame his reaction "because I do think [the storm] was man caused due to global warming, atmospheric phenomena." However, even though the other respondents employ this frame, it does operate differently for different respondents. For example, for several respondents, especially those for whom the storm was viewed either positively (Tables 1, 2, 3), as nonproblematic (Tables 4, 5), or with awe (Tables 6, 7) this perspective seemed sufficiently established prior to the storm that it guided their outlook from the outset. In contrast, respondents for whom the initial perception of loss was greater typically had to adapt and expand this frame to accommodate their experience of the storm. And the process of working through the evolution became part of the deeper meaning of the storm (see for example Tables 8, 9, 11and the discussion of the meaning of the storm presented below). In these latter cases, the ability to witness first hand the recovery, growth, return of eagles, etc. seemed to be a factor contributing to the ability to employ this frame to resolve the feelings of loss.

In addition to the broad theme of "the cycle of nature" three related but somewhat distinct subthemes were apparent. The first was related to the necessity learning how to accept things beyond human control. This subtheme was evident in comments made by four of the respondents (Tables 4, 7 (husband), 8, 11). A second subtheme used to frame the issue was a characterization that of the impact as having occurred to the "appearance" of the area, but not to the wilderness or the landscape itself (Table 2, 6, 7 (husband)). The third subtheme was that the ability to see and understand nature from this perspective ultimately reinforced or affirmed central aspects of self or community identity (Tables 4, 9, 11; see also Table 8 – section on "meaning of the storm").

The second most prevalent basis used to frame the reaction related to respondents' professional identities or relationships to place (Tables 1, 3, 5, 9, 12, 13). However professional identities were variable and influenced the perception in different ways. For example, the immediate reaction of the brothers in Table 9 was strongly shaped by their professional responsibilities – checking on clientele, assessing, and addressing the damage. It was only later that their personal reactions became a focus. The respondent in interview 12, seemed to have difficulty stepping outside of his professional identity to discuss his reaction on a personal level even when directly asked. The respondent in Table 13 noted that part of his sense of loss and inability to come to a more positive resolution was a consequence of his professional identity. In contrast, both the resort owner in Table 1 and the logger in Table 3 recognized and appreciated the economic benefits of the storm and never struggled with feelings of loss. However, the logger in Table 3 illustrates the danger of looking only at a single theme as a basis for

understanding how individuals frame and respond to situations. For example, the logger in Table 3 also thought the storm damage to the Boundary Waters was "kind of fitting" because, without sound management, this was the only way the area would be able to regenerate and stay healthy. Thus looking solely at a single dimension to understand how individuals respond to the storm could lead to a misinterpretation or mischaracterization of their reaction and underlying belief system.

The third most prevalent type of frame was one in which the respondent employed some basis of comparison to resolve the sense of loss in a more positive light (Table 4, 7 (wife), 10, 13). The bases of comparison were quite different. Two respondents contrasted the storm to Mount Saint Helens, though in very different ways. The respondent in Table 10 contrasted the damage from the storm (more temporary, scattered, part of the cycle of regeneration) with the devastation of Mount Saint Helens allowing her to see the storm in a more positive light. In contrast, the respondent in Table 13 held up Mount Saint Helens as an event clearly not caused by man and used it to help express why he rejected the storm as part of the natural cycle of things. One respondent (Table 7 – wife) came to a positive resolution to the feelings of loss by focusing on the fact that neither home and nor family were lost. Several other respondents noted that it was a miracle no one was killed, but in these other instances it is not clear whether that was just an observation of amazement or a basis of comparison to help resolve the feelings of loss to the landscape. And, interestingly, the response from the wife in Table 7 contrasts markedly with the reaction of the respondent in Table 13 who compared his reaction to the storm to that of losing his mother.

The final two frames were evident in the responses of just one individual each. The first has already been alluded to. While most other respondents were able to come to a more positive resolution, the respondent in Table 13 was not able to do so in part because he alone of all the respondents attributed the loss to human actions rather than nature. The final frame was an activity orientation to place – blow downs did not affect the quality of fishing (Table 2). He also hunted, but indicated he would just avoid areas of blow down in the future, suggesting a low level of site dependence for hunting activities.

Meanings of the Storm

Ultimately, for most respondents, the storm was integrated in their lives at some deeper level of meaning. Often, but not always, this deeper meaning appeared to be a consequence of their personal struggles to navigate or resolve the feelings of loss. As with the previous dimensions, individuals might hold multiple deeper meanings and important insights are lost by discussing the issue of meaning at a nomothetic level. The information in the Tables provide a somewhat richer understanding of the meanings respondents associated with the storm.

As with the preceding dimension, meanings related to nature were the most prevalent among the respondents. The most common nature-related meaning dealt with lessons about the cycle of nature and/or human's place in nature (e.g., nature as a force that humans do not control). This subtheme was evident in the interviews described in Tables 7 - husband, 8, 9, 10, 11, 12. A second subtheme related to the meaning of nature was a sense of awe (Tables 6, 7 (husband)). In both cases, awe described the initial reaction as well. The final nature-related subtheme was a new and lasting sense of

nervous about the power of nature (specifically wind) which the respondent in Table 13 expressed.

After nature related meanings, the next most prevalent class of deeper or more lasting meanings was a sense of renewed appreciation. In four of the interviews (Tables 8, 10, 11, 12), coming to understand the storm as a part of the cycle of nature seemed to create the opportunity to replace feelings of loss with feelings of good fortune at having been able to know the place as it was prior to the storm and/or to appreciate what is there rather than take it for granted. Two respondents (Tables 8, 9) also expressed greater appreciation for the sense of community that was evident in the cooperation among humans that occurred in response to the storm. Finally, for one respondent, the damage to the landscape seemed to lead to a renewed appreciation for the fact that home and family were safe (Table 7 – wife).

For a number of respondents the storm became symbolic of, and a forum for discussing, larger political issues. Among three respondents, questions about the storm elicited discussions about mismanagement. Two of these interviews emphasized the failure to wisely manage and utilize natural resources (Tables 3, 5) while the third believed that the storm was caused by undesirable human actions operating at a larger scale (global warming and atmospheric change) (Table 13). The final interview expressing meanings consistent with this theme linked the storm to the delay in "revamping" the permit system, an issue of great importance to him (Table 7- husband).

For two respondents, the ability to resolve the sense of loss in terms of acceptance of the power and process of nature ultimately seemed to lead to the affirmation of their self-identity as people who understand and appreciates nature (Tables 8 and 9). Finally, in contrast to the previous interviews, in three interviews (Tables 1, 2, 4) the storm itself did not seem to generate any deeper meanings. In all cases these were individuals who, from the outset, did not struggle with a sense of loss. However, for one individual (Table 4), the opportunity to discuss the storm in the interview did seem to provide an opportunity to affirm an identity as someone with a deep understanding of nature ("Nature isn't bad to a guy like me. Probably is to a guy like you, but not to a guy like me.") and an opportunity to remind a younger generation what loss really is (World War II).

Conclusions

One of the questions posed from the literature at the beginning of this pilot study was whether or not "sense of place is an inherently change aversive construct, oriented toward preserving established meanings against rapid social change" (Stedman, 1999). For some respondents, strong attachment to places damaged by the storm did seem to cause as sense of loss and lead to a struggle to understand and deal with that loss. For example, one respondent referred to not having lost the Boundary Waters, but having "lost it as we knew it in certain places" (respondent 11). However, all but one of the respondents who did experience an initial sense of loss were able to ultimately arrive at a more positive outlook. For most of these individuals, views about the dynamic character of nature – cycles of disturbance, regeneration, and rebirth were a central component to their ability to ultimately come to see the consequences of the storm in a more positive light, as a change in appearance rather than a change in the landscape or the fundamental wilderness character of the place. And recognizing that change is an inherent part of

nature led some to translate a sense of loss to a sense of greater appreciation for having had the opportunity to know the place as it was before the storm. For some the ability to resolve things in this way seemed to affirm or reinforce dimensions of their self-identity as people who understand and appreciate wilderness. And for some it was a lesson in learning to accept things in nature you cannot control and the need to look for the positive consequences that accompany that change. Of those experiencing loss, the one individual who was not able to replace the feeling of loss with a more positive outlook was respondent 13, who ultimately rejected "natural processes" as an underlying explanation for the storm and attributed it to human disruption of atmospheric processes. And for one respondent this led a renewed commitment protect wilderness areas from human-caused disturbance and change (respondent 10). Finally, for another group of respondents, a pre-existing understanding of nature as being dynamic and constantly changing seemed to help contribute to an acceptance of the storm's impact without ever needing to struggle with deep feelings of loss.

As a result, views about natural processes were important in helping these respondents who had strong bonds to place navigate the sense of loss they felt regarding the damage caused by the storm. Two additional points are worth noting. First, the sample for the pilot study is not representative of the public as a whole. It is comprised almost entirely of individuals with, not only a strong love of nature, but a deep appreciation for wilderness in the first place. For most of the respondents, this is why they live in the area and chose to pursue their current career. As a result it is not clear if a population less strongly associated with the concept of wilderness would be able to navigate the feelings of loss using views about nature in quite the same way.

Second, it is also important to emphasize the complexity of the underlying frames that the respondents seemed to apply to interpret and navigate their reactions to the storm. Views about nature were not the only dimension underlying frame of reference. Professional identity and standards of comparison (e.g., experiences from participating in World War II, loss of storm relative to loss of family) also appeared to be important factors in shaping reactions to the storm. And there is some suggestion that a larger or broader orientation toward nature was also important. For example, there is some indication in the data that respondents from whom loss was not an aspect of the reaction also have a more utilitarian environmental philosophy toward nature. Further, the results suggest that people ultimately employ frames of reference in different ways. For example, in terms of environmental philosophy and the means by which researchers typically measure it, respondent 13 would likely be characterized in a way very similar to other respondents, yet his reaction to loss is very different. Also individuals who would likely be characterized as having a different philosophy of nature (interview 3 versus interview 10) ultimately were more similar in their final views with respect to loss.

The nature of interviewee's responses to the consequences of the storm in the pilot interviews seem consistent with central aspects of two prior theoretical frameworks. The first is Peterson and Horton's (1995) concept of mythemes. Myths are defined as an image of values, beliefs, & attitudes an individual uses to interpret situations in life. Rather than seeing these belief systems as yielding predicable outcomes as posed in some models such as the Theory of Reason Action, Peterson and Horton characterize belief systems as a frame of reference that provides a flexible structure within which individuals create and interpret themselves and the situations they find themselves in. However, a

departure from Peterson and Horton's conceptual framework relative to the current phenomenon is the emphasis Peterson and Horton place on social group and cultural heritage/tradition as the source of the belief system. Relative to this issue, Mick and Buhl's (1992) work, which more strongly emphasizes the individual experiences, seems appropriate. Rather than cultural myths, Mick and Buhl emphasize an individual's life themes and life projects as a basis from which people construct the meaning of events. But like Peterson and Horton, the life themes and projects are seen as a frame of reference applied by individuals to understand or create meaning from current situations without suggesting that how a person ultimately resolves the situation is a predictable outcome. The relevance of raising these issues in the conclusion to a pilot study has to do with appropriate methodology for studying the phenomenon. The character of the phenomenon (response to loss) suggested by the interviews and outlined in this paragraph suggests that it is a qualitative phenomenon. How people navigate loss is a complex process that brings into play a variable set of factors based on life experience and that employs a frame of reference for which there is not necessarily a predictable outcome. While the results suggest there may be meaningful and identifiable patterns across individuals, studying and uncovering those patterns may well require qualitative approaches.

One of the concerns about qualitative research design is limitations on the volume of data that can be accommodated given the nature of qualitative data collection, representation, and analysis. One of the goals of this pilot research was to explore the possibility of establishing a research protocol capable of incorporating multiple individuals to expand the volume of data that can be incorporated in a qualitative study. The pilot study suggests some favorable possibilities in this regard. First, the interviews did provide a strong foundation for exploring the nature of the phenomenon. They were conducted by a second semester graduate student who had taken a course in qualitative research, who had excellent interpersonal communication skills, and who had first hand knowledge of the general region and the primary activity (having canoed in surrounding areas). However, with respect to the specific content or focus of the research (sense of place, loss, etc.) the student had a limited background. His undergraduate degree was in wildlife and though he had taken natural resource oriented social science courses at the undergraduate and graduate level (1 semester), his understanding of the specific research topic was limited to discussions with the principal investigator and a few readings. Yet, employing an interview guide, he conducted the interviews that provided a good foundation for exploring the phenomenon. This suggests that it is possible to develop an interview protocol that could successfully be implemented by multiple individuals with the appropriate background skills (an understanding of the nature of qualitative interviewing, good interpersonal communication skills, and a familiarity with the study area being important qualities).

However, interviewing is only one dimension of the obstacle faced in dealing with the volume of qualitative data. Data analysis is the other. This research project experimented with an approach to data analysis which also seems to have some promise in addressing this issue. Analysis went through a three stage process. The first stage was a very idiographic analysis which focused on seeking to summarize and organize what the individual interviews contained (with the goals of the study serving as a broad guide to relevance). The outcome of this analysis was the "Overviews." These "overviews"

represent an interpretation of the data at a very general level and are keyed to the actual data using an indexing system that allows a reader to interactively access the data when using an electronic version as illustrated/explained in the "Overview" section of the report below. This initial level of analysis is extremely time consuming while once completed it greatly enhances the speed with which an analyst can process the data. The second stage of analysis was something of a cross between an idiographic stage (the focus is still on characterizing individual interviews) and a more nomothetic analysis (the analyst develops an organizing system for structuring the interpretation and presentation of data across interviews). The third and final stage is the nomothetic analysis that focuses, where possible, on discussing the phenomenon rather than individuals. Overall, following this approach it seems likely that multiple individuals could be involved in preparing the overviews of stage one if given the appropriate training and examples. This alone would serve to greatly increase the amount of data that could be incorporated in a study even if the principal investigator was wholly responsible for the latter two stages of analysis.

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Tables (Idiographic Analysis 2)

Table 1. Resort Owner, Avid Outdoorsman.	
Sense of Loss	His initial response to his reaction to the storm was "I loved it because I got business." When asked directly if he felt any sense of loss he replied "It hasn't lost anything. All the aspen and everything really popped back up. It's already green."
Underlying Frame of Reference	His frame of reference in part was driven by his professional relationship to the place – his perception was that it brought in business and that was a good thing. In part it was driven by his view that storms are a part of nature, they happen all the time, so what is the big deal?
Meaning of the Storm	The storm had little lasting relevance to his life. When the interviewer sought to probe more deeply into his initial reaction to the storm his response was: "That was three years ago. Good God, that's old news."
Dialog about Nature	As indicated above, the storm was not a basis for deeper meanings or significance for this respondent. He did associated storms with nature and could not see why the issue merited deeper scrutiny than that.
Dialog about Humans	Early on in the interview he felt it important to emphasize that his town (and his livelihood) would not exist without tourists. He seemed to evaluate the storm primarily on that basis. He did express the view that it was a waste to leave downed timber on the ground, noting also that the Boundary Waters had been logged before. But this was not a defining issue as it was for some of the respondents below.

Table 2. Fisherman – Ice Fishing on Miner's Lake, Ely	
Sense of Loss	Despite the change of appearance (describing it as flattened and devastated) he felt no sense of loss. In fact he "loved it because I thought that it would be so ugly the tourists wouldn't like it any more."
Underlying Frame of Reference	His underlying frame seems to be a somewhat disinterested acceptance of the consequences of nature shaped in part by his primary goal – fishing – which was not impacted and is not dependent on the appearance of the landscape. While hunting is more greatly affected by the blow down, he will just avoid those areas in the future.
Meaning of the Storm	While there was hope that the effects of the storm would make it so ugly the tourists would not come, the storm itself did not seem to have much meaning.
Dialog about Nature	The storm is "natural. Let it blow down, let it burn, let it do whatever it's going to do."
Dialog about Humans	None really beyond the hope the storm would discourage tourists.

Table 3. Father (Logger) and Son (Works for Outfitter) in the Ely Area.	
Sense of Loss	The father expressed, not a sense of loss but that "personally I, you know in my line of work, I hope it keeps blowing. I hope more trees go down, especially on federal land." The son's responses, though continually referring to how ugly the impacted areas were using terms like "moonscape" and "devastation," suggested the impact was merely one of appearance. And in reference to whether he would continue to return to a favorite ice fishing spot that had been damaged responded that yes, he will continue to go back to fish there, in a way that suggested the very possibility of not going back was not something he had even considered. The substantive negative issues that they focused on were fire threats to surrounding community (linked to failure to clean the mess up or at least create fire breaks) and a concern that the storm damage (and the failure to clean it up) will channel tourists to areas not impacted by the storm (as if the Boundary Waters does not concentrate use enough already.
Underlying Frame of Reference	The father's response to the storm is driven by his professional relationship to the place. Partly there is a financial basis for his reaction - as a logger he has benefited financially from the blow down. But partly his frame of reference is driven by his views about cycle of nature in the absence of management. He stated it was "kind of fitting" that the Boundary Waters was hit because "they are never to do anything with it.... if you want trees for the future, ... They are going to have to go down .... So, yeah, that is how it is going to regenerate itself if they're not going to log it."
Meaning of the Storm	He sees the storm and its consequences in part as symbolic of a continuing pattern of unwillingness to engage in wise management of national forests. He sees irony in environmentalists beating loggers to death for killing trees and then turning around and leaving all the down and dead timber to rot. The storm served to deepen frustration and a certain bitterness toward the perceived capriciousness of wilderness (which is not their concept in the first place), because while placing restrictions on the opportunity to salvage log because it is the "Boundary Waters", the portages in the area were cleared not only cleared, but cleared with chainsaws. This led to a discussion about the distribution of power and benefits, which the father and son perceive is unfair to the locals, leading to a desire for local (even state level) rather than federal management. Though ultimately he places the blame for this situation on the environmentalists who sue the government, effectively tying their hands.
Dialog about Nature	There was little dialog about nature relative to some of the interviews that follow. However, the storm hitting the Boundary Waters was seen as a necessary step in the cycle of nature, given that wilderness is a place which we refuse to manage. Also they feel that management can complement nature, noting that it would be better for both scenery and wildlife if timber were removed from areas hit by the storm.
Dialog about Humans	As described above under the headings "meaning of the storm" and "frame of reference" the storm and its outcomes was linked largely to political issues related to wilderness and appropriate management.

Table 4. Retired School Teacher and Retired Outfitter and Ely Resident.	
Sense of Loss	A sense of loss was never part of his reaction. From his perspective, there was not much to say about it. It is natural, it happens lots of places and he cannot understand why people would not want to would not want to go in a see it. He drove all the way to Gunflint to see the mess they had.
Underlying Frame of Reference	Part of his frame of reference is his understanding of nature and that this was just a natural process and something that humans cannot control. "Nature isn't bad to a guy like me. Probably is to a guy like you, but not to a guy like me." Partly his frame of reference, though, was driven by his experiences in World War II at Guadalcanal, Boganville, and throughout the Phillipines which defines his perspective about "what life [and presumably loss and devastation] is all about."
Meaning of the Storm	The storm itself does not seem to have great meaning to him. It is part of nature and he does not seem to understand why people make such a big deal out of it. The interview itself becomes something of an opportunity to express that to a member of the younger generation, to remind them about true loss and devastation which comes with war.
Dialog about Nature	Storms are part of a natural process, neither good nor bad, and beyond human control.
Dialog about Humans	Teaching young people about nature is something he values as a guide. Real loss and devastation comes from war. He does regret the failure to salvage the downed wood but this is not quite the central focus of the interview that it is for AH.

Table 5. Retired Outfitter Has Been Going to Boundary Waters Since 1962	
Sense of Loss	Loss is not really a theme or reaction. Places have changed, but it is the way of nature not a disaster. Some changes affected things he valued (big old trees), others changes brought about conditions that he appreciated.
Underlying Frame of Reference	His frame of reference is an interesting mix of utilitarianism and nature appreciation. His views on nature lead him to accept the storm as just a part of nature, loss is a reaction of someone who understands nature's way. Unlike some of the other respondents who adopted the view that this is the nature of nature, the interview suggests he does not struggle as a consequence of the storm. His prior understanding of nature led to this perspective on the storm. His utilitarian side leads him to see the storm as a forum for engaging in a dialog about mismanagement of the area.
Meaning of the Storm	The storm was yet another example of waste and failure to wisely use resources – mismanagement by the FS driven by "ego artists" who "want it pretty on their clock." He also linked mismanagement to the increasing prevalence of amenities (boardwalks, outhouses) that attracts the wrong crowd, one that does not truly appreciate real wilderness. The storm has given these people "who don't know how to make love .. got no concept of a good orgasm" a "stump to stand on" for some of the political agendas he does not agree with.
Dialog about Nature	The storm is entirely consistent with his prior understanding about the way of nature.
Dialog about Humans	Focused on mismanagement and failure to wisely use resources.

Table 6. Area Resident Since 1950's, Editor/Writer.	
Sense of Loss	Rather than a sense of loss, the storm inspired a sense of awe
Underlying Frame of Reference	Unlike some of the respondents in the following Tables who adopted the view that this is the nature of nature, the interview suggests he does not struggle as a consequence of the storm. His prior understanding of nature seems to have led to this perspective on the storm.
Meaning of the Storm	It changed the appearance of the woods above and the wildlife, but not the landscape, fishing, or water. The changes in appearance in the woods generated a sense of awe for the power of nature. In fact the desire to see the impact of the storm was an attraction, he flew over the area two days after the storm to have a look. And some of the changes had positive effects in terms of the human experience such as the availability of firewood, clearing of views, and greater ability to understand the nature of the terrain.
Dialog about Nature	The storm is consistent with his prior understanding of the nature of the area. The storm is part of the cycle of nature. There was no sense of loss in part because the area was already growing back.
Dialog about Humans	Not a major theme in the interview. He did note that the storm did not cause many human injuries. He thought it was something of a waste not to try and salvag timber from the Boundary Waters, but realized that a lot of people did not want that and was accepting that their perspective was the one adopted.

Table 7. Husband and Wife – Owners of a Local Resort.	
Sense of Loss	The husband referred to a feeling of awe, both when the storm hit (he was outside) and in view of the impacts witnessed later. He also emphasized the inability to get to places he used to hike or hunt because of the tangled mess resulting from the storm. However, he also was able to see positive consequences – big ridges and cliffs that were once blocked by the trees. The wife described an initial feeling of shock and devastation, ultimately this gave way to a feeling of being blessed even though they lost some trees "we still have a house and we still have each other."
Underlying Frame of Reference	The husband, focusing more on awe, interpreted this as a message of what God can do. Overall the storm took some trees but it did not take the wilderness. Places change as a consequence of human use, fire, and events like storm – just like the fire in the early 1900's the damaged appearance will come back with "a different carpet". And similar to some of the other respondents, his responses indicated the need to be able to accept things beyond human control. Those areas he can no longer get to, he will be able to eventually because the downed timber would rot or burn in a fire. In such situations, his response implies, one must also look for the positives – BTU's for the fire place, lumber for furniture, opportunities to see views not present before. As suggested in the heading on "sense of loss" above the wife resolved the issue in relation to home and family. Her response implies these are the most important things in life impacts to other things are trivial by comparison.
Meaning of the Storm	The meaning of the storm for this couple seems to be fairly well summed up by the frame of reference above. For the husband it is an awe inspiring message about the power of God, a lesson to preservationists that nature does not keep places the same, and a lesson about change in nature and the need to accept that which is beyond our control. However, by chance a visitor came in to apply for a permit during the interview and that did bring to mind another meaning of the storm. It had delayed the "revamping" of the permit system and the latter was a source of great frustration to the respondent. For the wife it appears a reconfirmation of the importance of home and family.
Dialog about Nature	As noted above for the husband the storm served as both an illustration about the power of God/nature and a lesson to preservationists about change.
Dialog about Humans	The wife's resolution of the loss emphasized human based concerns while the husband's dialog about the storm indicated the need for humans to accept what they cannot change. Further he suggested that the ability to see beauty in area was more a reflection on the person than an outcome of the storm.

Table 8. Chamber of Commerce in Ely.	
Sense of Loss	She was in the Boundary Waters the day before the storm hit and back in the following weekend as part of her normally scheduled trips. Her first reaction on seeing the devastated shoreline was to wonder what happened to the eagles who had lost their nests. Upon seeing an abandoned campsite with equipment and a canoe under a jumbled mess of trees she also thought it was a miracle no one was killed. She did describe a feeling of loss "until you start putting things into perspective," which allowed her to uncover more positive lessons.
Underlying Frame of Reference	As with some of the other respondents, her interview responses indicated she framed her reaction in terms of nature and recovery. However, relative to some of the other interviews, she much more strongly emphasized the need to accept things you cannot control as an important basis for coping with the storm: "you start putting things in perspective and you realize there are some things you can't control. … it really makes you realize that you have very little you can control. I mean, very, very little. … You have to put in perspective, that's nature. I think there's a lot more things that I accept now, maybe not accept but realize I might as well accept because I don't have any control over.
Meaning of the Storm	Accepting that there are many things humans do not have control of in nature, led to her to see more value in the Boundary Waters than she did before "maybe … made you appreciate every trip that you take in there maybe a little more instead of just accepting it's always going to be there and it's always going to look like it's always looked for the past twenty years." To a small extent too, the positive reaction she had seen from the visitors she had interacted with, who saw the storm, not exactly as a good thing, but rather something they were glad to have been able to see, reinforced her views about the nature of the type of people who used the Boundary Waters: "they understand wilderness … and don't let those types of things bother them as much as somebody who's not an outdoor person and doesn't tend to venture out." For these type of people, the storm is a lesson about nature, wilderness, and appreciating what you have. Finally, she also noted that a long lasting impression from the storm would be how the community pulled together including the FS.
Dialog about Nature	As noted above in the section on "frame of reference" she did evaluate the storm in terms of nature and renewal. However, her discussion strongly emphasized the "lack of control" that humans have over nature.
Dialog about Humans	As noted in the section on "meaning of the storm," she emphasized the lesson for people the storm had and noted the sense of community that emerged in response to the storm. She also briefly discussed the media overemphasizing the "most gory" images and ignoring other aspects.

Table 9. Two Brothers – Owners of a Local Resort.	
Sense of Loss	After an initial reaction of assessing and addressing damage, one of the brothers did note a devastating feeling from seeing trees down. However this feeling was not lasting when he saw young plants coming up again and realize nature has a way of healing itself and that changes wrought on the landscape would ultimately work to the benefit of nature. Also they noted some positive effects from the human perspective.
Underlying Frame of Reference	Their initial reaction reflected their profession ties and responsibilities – assessing and addressing damage, checking on clientele. Initial feelings of loss were replaced with an understanding of this as being part of the cycle of nature and the realization that nature has a way of healing itself that humans do not fully understand and should not interfere with, contrasting the outcomes of the storm with attempts by humans to reintroduce wolves in some areas which he viewed as failures. Also, their images of the nature of life in the Boundary Waters (a life of greater self-sufficiency and living closer to nature) seemed to influence their reaction to the storm as described more fully in the section on "meaning of the storm" below.
Meaning of the Storm	For at least one of the brothers, responses suggest that the deeper meaning of the storm was a reaffirmation of their image of the nature of life in Ely. This was apparent in two ways. First, earlier in the interview they had described life here as more wilderness-like, closer to nature, a life of where people were more self-sufficient. One brother returned to that theme in response to the blow downs: "it's just hard to explain; it's a different type of life, it's a little rougher in this area, but who cares." Accepting the consequences of the storm as part and parcel of nature, then, was seen as part of the essence of living in this place. Second, the sense of community that emerged among people helping each other out in response to the damage caused by the storm was also reaffirming of their image of the nature of the place. When asked what he would remember most about the storm, one this brother referred to this latter issue.
Dialog about Nature	The brothers did resolve this issue in part by appealing to a dialog about the balance of nature and by seeing the storm as a part of nature.
Dialog about Humans	As noted above in the section of "meaning of the storm," part of the meaning of the storm related stemmed from the nature of the human community. In addition, there was some discussion about frustration with the FS's hands being tied in terms of ability to respond appropriately to damage caused by the storm (having instead to jump through hoops). However, this did not appear to be the defining theme that it was in some of the other interviews.

Table 10. Co-owner of an Outfitting Business.	
Sense of Loss	As with some of the other outfitters, her immediate reaction was to wonder if everyone was okay, she did have "quite a few customers out." Going into the Boundary Waters a short time later, her combination of feelings were "very, very sad", amazement that no one was hurt, and awe. However, her more long term reaction emphasized areas that were not damaged and the theme of recovery rather than loss. She referred to more browse growing in the damaged areas that led to more moose sightings, wildflowers in places they had not been before, and more song birds.
Underlying Frame of Reference	As noted above she emphasized the theme of recovery. In the long term she came to see the change as a result of the storm not as a bad environment, but as a changed environment, one that was regenerating and part of a timeless cycle of lightening fires, winds, snowstorms which are part of a cycle of renewal and rebirth.. Also underlying her frame of reference is Mount Saint Helens where she implies the devastation was complete, unlike the storm which is part of a regenerative cycle.
Meaning of the Storm	The storm ultimately did not produce a feeling of loss for her. Rather it elicited "maternal instincts" a desire to be more responsible and protective. "This is our backyard and we need to be on the front lines of helping protect it and sustain it and nurture it. And sometimes those things are out of your control, but ... it's so fragile it can be damaged and it better not be our fault. You know, Mother Nature can do it's own thing on it, but we're not going to do anything to contribute to a problem of it." In terms of nature the storm came to be seen as part of a cycle of renewal and rebirth.
Dialog about Nature	As discussed above, she came to see the storm as part of a timeless cycle of renewal and rebirth.
Dialog about Humans	In addition to eliciting a feeling of responsibility and protectiveness among humans, with respect to the human dialog she expresses frustration that the media has overplayed the damage side, making it look like Mount Saint Helens, while "the optimism of living in a wilderness, you know watching these cycles and stuff hasn't had enough good press."

Table 11. Ely Resident and Outfitter.	
Sense of Loss	His initial reaction was one of personal and professional devastation, likened by many to a war zone (though he has never seen one). Literally he almost cried. And though he still mourns the loss of some of the big trees, he has come to feel it is not such devastation. The storm changed the area for a life time in a way that changes the trip. And though he always preferred regions that were not as heavily impacted by the storm, he now lists that among the reasons for preferring certain areas. At the same time he does not want to say that the changes make the trip worse or less, it just makes it different. His view is that whether the storm-caused changes are a detriment is defined as a consequence of the human goals for the trip. Ultimately he describes having lost, not the Boundary Waters, but rather the "way we knew it in certain places." And while he avoids the most heavily impacted area, he realizes that even if he could only canoe in the affected areas he would still go.
Underlying Frame of Reference	He seems to have resolved his sense of loss by realizing that this is the way that nature regenerates. And that feelings of loss came from looking at things on a human timeframe rather than looking at things from a scale of nature. Also he reaction has been tempered by coming to recognize the reality of having to learn to accept things beyond human control rather, the need to "deal with what is and not what you wish it would be." An outlook he associates with true wilderness (which he recognizes that the Boundary Waters is not).
Meaning of the Storm	He was one of the respondents drawn to see impact of the storm, flying the area the day after the storm and taking a canoe trip two weeks later. Ultimately the meaning of the storm seems to arise from attempting to resolve his feelings of loss. He describes the storm as adding a new layer to the experience and understanding of place. It put him in a position of having to learn to relate to nature on its own terms. His responses suggest he had already arrived at this outlook with regard to specific wilderness trips and the storm in part forced him to deal with it on a larger scale. And the loss of "certain places the way we knew it" leads to, perhaps, a greater appreciation for what he does have.
Dialog about Nature	Change is not bad when it is understood to be part of the natural cycle.
Dialog about Humans	Good or bad changes about changes wrought by natural events reflect human goals and motivations. He avoids areas of the heaviest storm damage now, but the interview suggests he recognizes that this is a result of human goals (the types of aesthetics he appreciates).

Table 12. Director of a camp.	
Sense of Loss	At a personal level he described an initial feeling of sickness from the storm, but that was followed by a recognition that "everything else is still here, there's just a few trees not standing anymore." But this loss gives way to a feeling of fortune at having been able to have seen the trees when they were standing. Though he does recognize the loss people have to deal with in seeing 125+ year old trees down, he tends to emphasize more the impacts such as financial costs of the storm, need to be more safety conscious, and the loss of trees to hang food. And he was able to see positive human consequences of the storm – vistas that were opened up, timber for building 1800's style buildings, and new trails for cross country skiing and dog sledding.
Underlying Frame of Reference	His reactions to the storm seem to be framed predominantly in reference to his professional identify and relationship to place. His response to the initial question about his reaction referred to the difficulty of how they would get the area cleaned up enough for people to have great experiences. And when asked about his personal feelings, after a brief response, he reverted by to the professional side, expressing relief about lack of human injury. He also alludes to realizing that "that's nature, it does happen that way."
Meaning of the Storm	When asked about what he would remember most about the storm he notes it was a combination of the power of nature and the impact it can have on people financially. He does note that the feeling of loss of the stately old trees has given way to a feeling of good fortune at having been able to seen them while they were standing.
Dialog about Nature	His initial feelings of loss seem successfully resolved through recognition that this is part of nature. This did not seem to require the "psychological struggle" faced by some of the respondents below.
Dialog about Humans	In attributing the storm to nature, he focuses on impacts relative to human goals and desires. Having professional ties to the place, the focus of his human dialog is on these issues.

Table 13. An Ely Resident.	
Sense of Loss	He expressed the strongest sense of loss. He struggles to know how to describe those feelings, making analogies to September 11 and the loss of his mother. With regard to his mother he noted "the storm affected me as much if not more. And my mother passing away was a big deal and it hit me hard." Like some of the other respondents he was drawn to look at the damage, flying the day after, but he was so affected by the damage he had to stop taking pictures. He refers to one place special to him before the storm that he has no interest in going to anymore.
Underlying Frame of Reference	He struggles with the idea that this is part of nature as the basis for resolving his feelings of loss. He recognizes that this is part of a "complex ecological story" and that this could be an exciting opportunity to see nature changed if you were detached like a scientist, but he is not detached. Partly he feels the inability to become detached comes from his professional background. He is a nature photographer and is used to taking pictures that make people feel good but with regard to the storm the "visual part makes me nervous, it's a war zone in a sense." So while "the naturalist and scientist part of me is kind of intrigued ... I don't go into the Boundary Waters to think about science or progression so much." He also describes himself as "an order freak" and refers to the loss of "a sense of normalcy and order that is the epitome of kind of a natural world." And finally he rejects an appeal to the cycle of nature as a basis for resolution because "because I do think it was man caused due to global warming, atmospheric phenomena."
Meaning of the Storm	He said it took two years "to get over it" and ended the interview by saying he was pretty well over it. But overall the interview suggests this is still and ongoing struggle for him. He used to climb trees and ride the wind like John Muir, but now wind makes him nervous. He refers to a recent wind storm generating a feeling analogous to a Vietnam veteran hearing a helicopter, how it becomes a symbol of war. Ultimately, he rejects the notion that this is a product of nature, seeing it instead as a consequence of human disruption of atmospheric phenomena. He contrasts this perspective on the storm with Mount Saint Helens which clearly was a natural event. This leads to a feeling of anger over the poor political leadership regarding environmental issues and leads him to define himself more clearly as "anti-man" in the sense of putting humans forth as something more important than nature.
Dialog about Nature	As discussed above, he struggles with seeing this as a natural process. Ultimately he rejects this means of resolution, partly because he recognizes that he is not able to be a detached observer like a scientist and partly because he sees storm as a human caused, rather than natural phenomenon.
Dialog about Humans	As discussed above, he attributes the storm to global warming caused by humans. This leads to a discussion about political leadership and humans putting themselves before nature. He "loves" the locals but also expresses frustration regarding the angry local politics. He recognizes that views he expresses in this regard are quite different from those of others living in the same community and indicates that, for the adverse reaction, he would not express these views in public.

Overviews of Interviews (Idiographic Analysis 1)

These interview overviews are linked to the original interview text by excerpt numbers which serve as the basis or justification for the interpretation. In the electronic version, these excerpt numbers are highlighted in blue and are hyperlinks. By clicking on the highlighted excerpt numbers, the reader will be transported to that place in the original interview text. After reading the interview text, you can return to overview by clicking the "back" arrow on your tool bar. [In the draft version of the report, only overview 5 (page 35) contains hyper links]

Resort Owner, Avid Outdoorsman
(Interviewer felt respondent may have restricted his comments due to taping)

PC has lived in Ely for 12 years but has been visiting the Boundary Waters for 46 years (15-21). Business demands restrict his use of the area to about 10 days during the summer, though winter use is a bit more flexible (29-30). He describes his sole goal is the opportunity to fish though he also values the wildlife, the opportunity to get away from telephones and other daily distractions, and the opportunity to get away from people (32-34, 70-82, 93-95). He also values the ability to drink water straight from the lake – there are not many places you can do that (129-135). From a business standpoint, Ely – his home, would not exist without the Boundary Waters and the tourists it brings and it was important to him to make that clear (137-142).

He does have special places he likes to go to, but as with many fishermen he does not what to share any information locations (107-109). When they eliminated motor permits from areas he went in the Boundary Waters he started going to Quetico because the areas he likes there are more easily accessible. He referred to knee problems as the basis for his concern for accessibility though he also indicated he looks for the fastest, quickest, easiest way to get there, presumably because it is the fishing, not the canoeing he seeks (111-121).

When asked about his first reaction to the storm he stated "I loved it because I got business" (157). He went on to state "storms are nature. They happen. Whether they happen in Ely, Minnesota or tornadoes in Kansas, storms are a part of life and just because it happened here, what's the big deal?" (164-166). When probed about it further he replied: "That was three years ago. Good God, that's old news" (197-198). And he felt that was the general consensus of people in Ely – "storms are storms, happen all the time (212-214). He indicated that he felt no sense of loss: "It hasn't lost anything. All the aspen and everything really popped back up. It's already green" (259-261).

He has been to Quetico since the storm but not the Boundary Waters, a program on the Discovery Channel being the basis of his direct exposure to damage within the Boundary Waters (180-183). He also indicated that the places hit by the storm were not places he went (218-220).

He expressed the view that leaving the downed timber on the ground was a waste, noting that the Boundary Waters has been logged before, "so what's the big deal?" (234-253).

Fisherman – Ice Fishing on Miner's Lake, Ely

He has been living in Ely for 2 years and using the Boundary Waters for 15 years or a little more for remote walleye fishing and bear hunting. He spends about 20 days a year in the Boundary Waters. He values the opportunity that the Boundary Waters provides to "get by myself" (9-59). In fact some of the places he most likes to go are "dead ends" which the tourists by pass (74-78). Though he does also appreciate the opportunities to view scenery and wildlife (71). He has also trapped in the area (78-79). He expresses frustration with being able to get permits to get in "because all the tourists have the permits bought up the year before" (65-67).

When asked about his reaction to the storm he said "I loved it because I thought that it would be so ugly that the tourists wouldn't like it anymore" (103). And he was hoping it would burn to make it more ugly for the tourists and also to move nutrients into the water and make it better fishing (117). When asked to describe the effects of the storm, he noted it looks so much different (144-147) and referred to it as "... devastated. I mean, just flattened. Islands, little islands, no trees standing on them" (127-129). But he also responded it did not not change how he felt about the Boundary Waters or affect him much because it does not hurt the fishing any (131-136, 151). It has impacted his experience in some ways – some sites are more windy without the trees. And bird hunting has become more difficult having to crawl around to retrieve the birds and in the future he will avoid those areas (112-116, 121). Asked if he felt a sense of loss, he responded: "No, not really. ... It's natural. Let it blow down, let it burn, let it do whatever it's going to do" (160-169).

Father (Logger) and Son (Works for Outfitter) in the Ely Area

The father has been living in the area for almost 30 years (3). He does not go into the Boundary Waters per se which he sees as pretty much the same as the "stuff" outside the boundaries (8, 30-31). The Boundary Waters itself does not affect his livelihood, but he expresses concerns about continued expansion which does affect him (9-13). The son works for an outfitter (20-28). Though recognizing that it is pristine the son comments that there are places outside the Boundary Waters where you would be less likely to see people compared to going into the Boundary Waters (28-46). And except for the really remote areas of the Boundary Waters, both father and son believe the fishing is better – more species of fish especially – outside of the Boundary Waters than inside (98-108). Their perception is the tourists come up for the experience of pristineness, or at least that is what they hear. But they comment, while it was beautiful, now "it all blew down," "it's not the same. It's a moonscape" (112-123).

They witnessed the storm, expressing amazement in what could happen in 15 minutes (137-141). And the father added " I mean, personally I, you know in my line of work, I hope it keeps blowing. I hope more trees go down, especially on federal land" – at least

on federal land outside of the Boundary Waters where it is possible to salvage log (143-146). He has made money as a result of the blow down and sees it as the only way that they will be allowed to cut trees that otherwise they are not allowed to harvest (294-308,). So, as Father said earlier, "I hope it keeps blowing, especially on federal land, not county, state, or private, just the federal stuff. I know it sounds pretty crazy, but you know it was good" (299-300).

He expressed disgust at the thought of all that fiber just lying there rotting and sees it as irony that environmentalists beating loggers to death for killing trees and we turn around and leave all that downed timber to rot (238- 245, 559-565, 768-775). He cannot see the sense when all it would take to get to it is a 100 or 200 foot road (317-331). He sees failure to address this issue as a continuing pattern of unwillingness to engage in wise management. If it had been logged it would not have blown over in the first place, while failure to clean it up or at least cut fire breaks creates a threat to the towns in the area (316, 342-347, 376-385). And the frustration at the federal government and a certain bitterness toward the perceived capriciousness of wilderness (which is not their concept in the first place), was deepened by the fact that, while placing restrictions on the opportunity to salvage log because it is the "Boundary Waters", the portages in the area were cleared not only cleared, but cleared with chainsaws (347-368, 594-612, 629-648, 698-701). "Why were they doing that? Why it's a natural disaster...they should have left it natural" (352-353). It was not that chainsaws were allowed, but that they were allowed only for addressing a subset of the damage (371-376). They feel chainsaws were allowed on the portages solely to make money – if it was not cleared the tourists would not be back (387-399). This led to a discussion about the distribution of power and benefits, which the father and son perceive is unfair to the locals, leading to a desire for local (even state level) rather than federal management (401-412, 573-583, 682-683, 703-739). Though the father also observes the the FS has its hands tied by law suits to the point that people within the agency describe themselves as observers (414-417). And finally he seems to settle on the people that sue the federal government because the area is wilderness as the source of the problem, which is why he believes the area should be a park (614-623, 422-426).

Despite these frustrations, in a sense the father felt it was "kind of fitting" that the Boundary Waters was the area that got hit because:

> F: "they are never to do anything with it.... if you want trees for the future, if you want them 100 years from now... They are going to have to go down .... So, yeah, that is how it is going to regenerate itself if they're not going to log it" (202-212, also 283-288, 742-766).

The area around their home was not really hit, but the day after the storm they began helping others up the road who had been harder hit. They described it as "a big mess" (150-165, 184, 197). And the impact they describe is that it made the landscape ugly and devastated (258-262, 272). The son noted it would "be nice if they burned it" (212). And relative to burning, they expressed the opinion that Canada, which went in and burned with 40 crews right away, took care of it the right way (226-236).

They did describe a special ice fishing spot, the place where the son had ice-fished for the first time, that had been hit by the storm. They described it as looking devastated or nuked like it had gone through a war (440-453). But though it may be "ugly ... changed ... [not] the same", when asked if he would go back there to fish he responds: "Well, I go back there to fish. You know, I mean before it was ... yeah I go there to there to fish" and to canoe (477-487). However both father and son feel it would have been better, for both the scenery and the wildlife, if the downed timber had been removed (490-503). Overall, for both father and son, even though the storm made the landscape in impacted areas less attractive, the real impact of the storm seemed to center on the way it symbolized the "wasteful" management philosophy in designated wilderness, power imbalances, and the frustration that causes (778-817).

One negative outcome of the storm they do express is concern that the damage, and the failure to clean it up, will channel tourists to the areas not impacted by the storm (as if the Boundary Waters did not concentrate use enough already) (42, 551-554, 655-681).

Retired School Teacher and Outfitter and Ely Resident

He has been canoeing in the Boundary Waters since 1957 (29). He started outfitting in the summer when there was an across the board salary cut for teachers in 1960 (13-25). He expressed a love for wilderness having been brought up in the backwoods, following his brother on a trap line (72-74). He lives in Ely to be able to live near the woods and outdoors (80-81). He values wilderness for its primitiveness, but distinguishes his use of that term from modern "environmentalists" who want the Boundary Waters to be a "wildlife study area" and do not want humans there (90-100, 369-375). The value of the Boundary waters is so people, especially young people "can travel through the area and see basically what the original white man saw when he first came to this area" (190-193). Though he seems to struggle with the idea of excluding timber harvesting in national forests as envisioned by Teddy Roosevelt (114-117, 194, 216-218).

When asked about the storm his response was "well there isn't much there to talk about. There it is right there" (222-223). Asked about his reaction to the storm he replied "Nature. There's nothing man could do to stop it. And it's supposed to happen in another 3,000 years" (238-242). Asked about the downed trees his reply was "Natural. I've seen it down before" (246-247, 381-384). Overall, his responses suggest the storm did not cause him to struggle with a sense of loss - "as I say, it's natural. It happens in lots of places. You see and this is where people can see what nature is. I can't understand why they wouldn't want to go in there and see it. I drove all the way over to the Gunflint just to see what happened over there and what a dismal mess they had" (278-280, 337-339). And he notes that "Nature isn't bad, to a guy like me. Probably is to a guy like you, but not to a guy like me. I don't complain too much when it snows, when it gets down to almost 69 below is what we had one day here, one morning several years back. See, I also spent six years in the United States Navy ...at Guadalcanal, ... Boganville, all the islands through the Phillipines... And that gives me a ... perspective of what life is all about" (404-429).

He has seen a decline in business since the storm, but believes that is due to the economy and not the storm (310-313). He believes the fire restrictions are stupid because fire is not going to get away from most people – from regular wilderness travelers at least. He sees that as a rule made up by someone academic who does not have the experiences that he himself has had. In his view, a campfire is just as likely to get away in an area without blow down as those with it (441-451). He felt the FS had done a terrific job getting the portages cleaned up and re-opened (452-455). He does express concern about not harvesting downed timber and things the FS needs to get more people with a logging background to address this (458-474).

Retired Outfitter Has Been Going to Boundary Waters Since 1962

In terms of attachment – this is where he came when he was young, 16, and impressionable to the poetry of nature. He feels that if he had gone to the Grand Tetons or Yellowstone or Alaska at that age he would have fallen in love with those places (282-284). He describes himself as someone who is not a "Johnny come lately" (162).

His underlying environmental philosophy is an interesting mix of utilitarianism and deep appreciation for nature and the experience of nature. On the one hand he has such a utilitarian view that, when asked about whether the storm caused problems, he frames "the problem" as mismanagement by the FS. The blown down timber was not utilized and going to waste because the area is not managed there is no road system to harvest the downed trees that are an inconvenience to the recreationists, wildlife, and increasing fire danger (12-25, 33-34; 544-564). This all came about because of short term views of "ego artists" that "want it pretty on their clock", the reputation of being a generation of good stewards who do not care about future generations (12, 569-625). On the other hand, he believes the Boundary Waters is priceless (47) and he is in favor of expanding our natural areas (49). He would rather sleep on the ground than be in a house (191). He has a love of being out in nature, an experience he finds precious and real (189-195) and one he enjoys introducing other people to as a guide (181-185). In fact he sees the Boundary Waters as priceless in part because it is "obtainable" (compared to the Sierras or oceans which are frontiers and wilderness that only a few will ever have the ability to access) (213-226). If you take the time (which increasingly our society is not [197-209]), you can immerse yourself in it (227).

Overall if you want to talk about problems with the area, the dialog he wants to engage in is about FS mismanagement (51-127). Part of that is not utilizing the timber resources appropriately as suggested above. But he also expresses concerns about management of the area for recreationists. The examples he uses are related to what he refers to as the "amenities" the FS puts in the Boundary Waters (outhouses, boardwalks, signs). He feels these bring in the wrong crowd – those who want amenities and don't appreciate nature, and are looking for a city park experience. In his view, getting up to your crotch in mud at a portage, if that's the way it is, that is real nature (113-117; 163; 175-177). While he is willing to concede to boardwalks to protect particular types of flora or fauna (110), he feels the current level of "amenities" greatly exceeds that. Plus he feels that the FS

ignores the adverse environmental consequences of these amenities. Two examples: (1) in his view, burying human waste is the worst thing you can do with it (scatter it on top like a moose going down a trail is natural and it soon disappears) and (2) use of treated lumber for boardwalks rather than cutting and using trees on the site leads to chemical leeching. He contrasts the management of the Boundary Waters in the US with the Canadian management of the Quetico (which he considers more natural and appropriate) (100-106;151-177).

With regard to the storm itself, he does not see it as a "disaster," it is part of nature (1-10). He does not feel it is a negative. It is part of the essence of this place which is wilderness – there are no absolutes the only certainty is uncertainty, it is always changing (519-523). He links this to the drought of '76 that killed a phenomenal number of trees (528-535). He contrasts his view with those that want to live in a "methodical world where it's black and white ...they feel comfortable living in a subdivision where the street is always straight and the grass is always mowed.... But nature's not that way..." (524-527).

His immediate reaction to the storm was of concern for his customers (333). Once he started realizing there was no human loss, he started calculating timber value which could be harvested (345). He felt it was an opportunity for the FS to demonstrate good forest management – get stuff on trucks and off to the mill (384-416). When asked whether this was a conflict with his value of this place as a natural area, he responded the Boundary Waters is not a virgin area after all, it has been logged before (389-397; 425-435).

As far as his views about the effect of the storm on guest use, it has been only a little bump on the radar (360). It has changed the experience – made it more physically challenging to get in (so the bush rats have been using chain saws) (442-452). And while he did discuss change as a consequence of the storm, he stopped short of describing that change as negative (519). For example when asked about the impact of the storm on places special to him he said it was nothing negative. In fact, he felt "honored or privileged that people asked me if the old tree [an 1100 year old white cedar]" in one of his special places survived (488-492). And though some areas lost "big ole pines" that he used as landmarks, he noted the storm opened up "this panoramic view and breeze under your canoe, and no bugs, and blueberries to pick and areas for deer to run around. So there's some real value to them." (500-506).

Its biggest affect on him, in his view, is that it gave "those group of people on planet earth who truly don't know how to make love ... got no concept of a good orgasm" (low impact camping advocates that say don't build fires – in his view somebody wants to camp without a camp fire has "no poetry in their soul") a stump to stand on (453-483). In other words, in some ways the storm has served the political agendas of those whose philosophy toward appropriate norms for the experience of these natural places differ from his.

Area Resident Since 1950's, Editor/Writer, averages 20-25 days/year in BWCA

BC is a canoe based fisherman, camper, and traveler who at one time did work as an outfitter and guide. He values the area as a wild place with no roads, few people, an abundance of wildlife, opportunities to fish and beautiful scenery (47, 87-90). He has a strong attachment to the Boundary Waters, when asked what it means to him he described it as "my life" (159). He describes it as "the real country" (162).

When asked about his feelings regarding the storm he characterized it as natural phenomena – events that happed in the area over the centuries and part of the nature of the woods (264-268, 365-368). Rather than a sense of mourning, he described a sense of awe "when you see what nature can do, wow, you know, like an atomic blast, only it covered hundreds of square miles" (339-341). He describes the appearance after the storm as a "mess," looking like a " like a bomb hit somewhere and flattened her out" (173-181). He described his first experience after the storm as "weird" because "we had a hard time finding fish because all of our landmarks were gone" (174). He also noted that immediately afterward the wildlife, especially the eagles and other raptors were missing, the place was silent (192-199). But these dramatic changes in appearance did not diminish his desire to visit the place. As he noted, "it was kind of awesome really to go out and look and see what nature had done out there and see some of the big trees that had been markers on points and things, the big pines ripped up and tore to pieces, shredded" (204). And while he noted negatives such as blocked access, he also noted positive consequences of the storm such as availability of firewood at the campsites (209-214). And while that brought up the issue of forest fires and the general belief there ultimately would be burns as a consequence of the storm, he characterized that as consistent with the natural history of the area, referring to burns by Native Americans (223-238).

He also emphasized the fact the changes were primarily changes in appearance. He noted that while it did change the appearance of the woods above, it did not change the landscape, the fishing, or the water (187, 255-258). Further when asked if there were any long term sense of loss he stated no because it was already growing back – new growth was up "stuff like aspen and birch and balsam are already 5, 6 feet high or higher ... they come right back ... in ten years a lot of people won't be able to detect there was a storm unless you know where to look (359-365). And as another positive he noted that the storm cleared away views of a lot of the rock ledges and cliffs so that one could get a better idea of the terrain. But again he noted that this change would only be temporary, the trees would grow back (387-392).

Regarding tourism in the area in general, his impression was that, despite fears that the storm would be a detriment, people had actually been attracted by all the media attention, coming to the area out of an interest to see what had happened (242-244). And like other residents he emphasized that during the storm itself, there were few injuries and no deaths and some groups kept right on fishing (247-251). He himself flew two days after the storm just to take a look (339-341).

His comments did get into the management of the area and he contrasted the US management (more restrictive and restricted by Washington and political climate) with

the Canadian management (more leeway and "pretty much their own rule") (283-294). Overall though he felt both governments were doing a good job, referring to the balance between use and resource protection and the improved conditions of some of the areas he has noted over the last half century (less trash, concentration of impacts at campsites as a consequence of fire grates) as the basis for his opinion (298-310). Like some other residents he thought it was something of a waste to leave the downed timber unused and did support those who wanted to allow salvage logging even within the BWCA (372-378). He implied that the imaginary line somebody drew on a map to demarcate "the holy waters" was a bit arbitrary in his opinion and that the areas outside the boundary that had been salvage logged and replanted would look good sooner. But he recognized that is not what a lot of people wanted and he was okay with that (379-382).

When asked about what he would remember most about the storm, he discussed the impact to the forests around his home and having to use a chainsaw to clear a path to his home and the feeling of good fortune that nothing hit his house (322-330).

Husband and Wife – Owners of a Local Resort

The husband first came to the Boundary Waters area in 1952 (15-21). In the past he hunted, fished, snowmobiled when it was possible and skied after it was not, in the Boundary Waters. Though now, at his age he noted "sleeping out in the tent in the winter is hard" (30-24). Back when he was guiding he estimated he would spend 130-50 days "a summer" in the Boundary Waters (39-40). He described the Boundary Waters as an area of tremendous personal importance "a diamond," of which there are few, enhanced by the ability to travel by water and not to have to deal with mountains like in the wilds of Montana (130-133). He especially valued experiences where you did not see anybody and for that reason frequently went to the Canadian side and notes that use is actually lower now because of the required permitting (61-71). He believed that you can always find solitude experiences in the Boundary Waters if you are not lazy and are willing to portage the nearby lakes (82-94).

When the storm hit he was out at the landing and watched the lake go from flat to 5-6 foot waves (169-199). He described a feeling of awe (682-690). His wife described it in terms of shock and devastation but a feeling of being blessed because they still have the house and each other (692-693). He described the impact of the storm as unbelievable, there are places he used to go that you cannot get to because they are too much of a tangled mess (235-250). It has had a dramatic impact on his duck hunting – he cannot get to the places he used to go; grouse hunting and hiking in general also have been impacted (258, 263, 523-524). Fishing has not been impacted so much because the water is still there and fish are not much affected by what happens on the shore other than they like shorelines with downed trees (259-262). He notes that going into the Boundary Waters is just a whole different experience, one that has created " a lot more respect for the wilderness and for what God can do to it" (270-271, 300-310). A message, he implies, to preservationists who want to keep the places the same – it does not work that way. God changed this whole place in a moment. It changes through human usage, fire, and natural events like the storm, and you have to be flexible (272-277). There is nothing you can do

about it but accept it and wait (559-560, 672). "And what are we going to do, leave?" (576). Besides the places that are impassable they will be able to get to again in a few years either because the trees rot or a fire will go through and take them down (561-572).

And though it is different looking now, it is the same place that it always was and it is coming back with "a different carpet" (286). They had "a hell of a storm" that took away some trees, but it did not take away the wilderness (456-461). He makes an analogy to a major fire event in the 1900's where you can still see the fire scars (279-286). He also states that it is "kind of neat to see where it really blew down and you didn't know there was hills in there. Because the tree line kind of establishes an even top and you didn't know there was these big ridges and cliffs back in the woods that you can now see...it's different" (286-287). He feels the storm has not had much impact on his clients' experiences. The FS got the portages cleaned up rather rapidly and "if they can't see the beauty of what's here now, then, you know, they wouldn't have seen it to begin with either. Because it is still one of the most beautiful spots in the world" (293-297).

He also feels the blow down has been "advantageous to me" in some ways (580). The down timber has been used to make furniture and cabins on his property (585-587). And the storm and its aftermath have made people more aware of what kind of fuel system they have and the role of fire (645-663). Though fire is not his preferred means of forest management because he hates to see it wasted when it could be furniture, cabins, or BTU's in a fire place (664-667).

When asked how his reaction to the storm has changed over time, he stated the main thing was disappointment in the government (327-329). His concerns centered around FEMA and money promised to help with the clean up. The locals had to pay 10% immediately, which they did. But the money allocated by the federal government, which is supposed to go from the state to the county government has been a fiasco. The clean up operation itself he thought was run well, it was the distribution of money that was problematic (330-357). At this point a customer comes in for a permit and then the respondent engages in a lengthy discussion of the problems with the permitting system (363-444). Its link to the storm in his mind is that it has delayed the revamping of the permitting system and this represents a major impact of the storm for resort owners (417, 449). [Also worth noting is that he attributes the state of the current system to the courts and law suits brought about by the Friends of the Boundary Waters (413-417)]. Other than the delay in working out the permitting system, the only impact of the storm for resort owners that he notes is that it gave a lot more wood for their cabins (450).

Both husband and wife were supportive of the decision to allow the use of chainsaws to aide the clean up in the wilderness as well as the use of helipads for prescribed burns (484-503, 547-552).

Chamber of Commerce in Ely

GV has lived in Ely for 22 years and typically uses the Boundary Waters once a week on day trips or motorized canoe trips for fishing for that period of time (3-20). She also does

overnight trips when possible and in the winter her activities in the area include cross country skiing, snowshoeing, a dog sled trip or two and fishing (30). Because of time restrictions she refers to herself as an edge user (56). She uses the Boundary Waters partly because it is close, but enjoys the peace and quiet, scenery, wildlife, and getting away from people (35-36, 49-51, 97). She feels that in the vastness of the Boundary Waters, it is not hard to get away from people (41-45, 57-60). Seeing 10 people would lead her to think it was crowded (65-67).

She was in the Boundary Waters the day before the storm hit and then again the next weekend as part of her weekly scheduled trips (75-91, 142). Her first reaction upon seeing the devastated shoreline was "what happened to the wildlife" especially wondering about the lack eagles and the loss of their nests (109-113). She then came upon an abandoned campsite with tents, equipment, and a damaged canoe and a "jumbled mess of tress on top of them" and thought it was a miracle that no one was killed (114-120, 124-130). She described a perception that the area was totally different and said that was something of a depressing feeling (131-137). She fished, though did do a bit more traveling around and looking more than normal on that trip, maybe anticipating finding someone (150-153). But what shocked her the most was the loss of eagle nests (154-155). But her long term reaction has focused on the return to normal over time; how it greened up especially along the shoreline (160-168). She noted that a year later, in some areas you would not know what had happened if you did not know about the storm before hand (161), although she also stated she felt the wildlife had fully not recovered referring especially to the impact on a deer migration route at Knife Lake (351-357). She indicated she did feel something of a loss:

> "until you start putting things in perspective and you realize there are some things you can't control. I mean, I think it really makes you realize that you have very little you can control. I mean, very, very little (330-334). You have to put in perspective, that's nature. I think there's a lot more things that I accept now, maybe not accept but realize I might as well accept because I don't have any control over. ... These things happen all over the world. It just happened to hit home because it was so close this year, or that year. So I think it puts a lot of things in perspective" (367-371).

And she notes that perhaps this allowed her to see more value in the Boundary Waters than she did before. Living in the area she had taken for granted this place and the storm "maybe ... made you appreciate every trip that you take in there maybe a little more instead of just accepting it's always going to be there and it's always going to look like it's always looked for the past twenty years" (372-378). She also noted that a long term impression would be how the community pulled together including the FS (385-388).

She felt the media had overemphasized some aspects of the damage, focusing images on the "most gory" and ignoring the progress of the clean up (180-192, 201-210). She also noted that some visitors are now attracted by the desire to see the blow down (193-196). She felt the reactions of those who saw the blow down were not exactly negative. It was not exactly a good thing in their minds, but they were glad to have been able to see what

happened (232-233). And even among the people who were out during the storm, she did not talk to anyone who indicated they would not go back in (234-237). And she attributed that to the kind of people who go into the wilderness – "they understand wilderness ... and don't let those types of things bother them as much as somebody who's not an outdoor person and doesn't tend to venture out" (238).

She believes that the storm has changed some of the "typical" ways of doing things. For example, with the loss of trees, where are you going to hang your food (277-282). And people are a bit more aware of the risks and what nature can do and now go into the Boundary Waters a bit more prepared (283-287). She also thought maybe it has had an effect on the use of various entry points, but was not sure (295-298).

Two Brothers – Owners of a Local Resort

Their first trip in the Boundary Waters was 15 years ago (38). The brothers have owned the resort in Ely for 9 years, one having previously been a school teacher and the other in sales. They decided after a mid-life crisis to try something else (7-8, 39-40). They were looking for a "semi-retirement" in a place without the stresses of the city (241-274). The resort offers suites, cabins, and apartments, access to three "nice canoe loops" and two major hiking trails, boat rentals, tow services, and ice houses (56-68, 79, 108-114). They were attracted to Minnesota by the Boundary Waters, emphasizing that half the 5000 acre lake they are on is in the wilderness (25-29). Though they manage a resort, they link the experience they try to provide to the idea of wilderness. Unlike Lake of the Woods or Lake Superior, this is wilderness, the paths are very difficult and no TV, "if we get a paper, we get a paper, who cares you know" (193-201). They do not have swing sets, they want " the kids to get out in the woods and see what this world used to look like" (293-300). And though they live at the resort, they distinguish it from life in the city, characterizing it as something closer to a wilderness life in which they are more self sufficient:

> "what do you do if you get snowed in or something out there, and you just ... put another log on the fire. ... you walk out to the lake and you can catch fish, you could eat, you got water, you got, hopefully anything you want really. ... but for some other people it's hell. You get people up here - raw, raw, raw this is nice wilderness, ... but after a week or two they are ready to head back to the city. Mostly it's the younger set. ... Too many mosquitoes, yeah they don't know how to cope. You got to get ... wood wise or whatever you call it. You just know what to do, and at the right time you do it. You enjoy the country" (254-288).

One brother indicated that they had been only a few places in the Boundary Waters other than around the resort (49-50).

With respect to the impact of the storm, they felt fortunate, having only lost 40 trees. Although both ends of one of the brother's house were damage and the roof had to be replaced (311-318). When asked about their first reaction to the storm, the brothers noted assessing and addressing the damage was the first order of business "Cleanup that's all

you could do, you had to get back in business. Clean it up, cut it up, pile it up" (347-348, 552-565). They also had to get out and check all the campsites to see if any of their guests were hurt. They described one pair whom the storm blew around in their tent and who had one canoe damaged but were able to fix it with duct tape and get back (and who came back the next year to take a look) (361-368). They were aware of the seriousness of some of the injuries and the airlifts and commented it was incredible that no one was killed (372-375).

One brother went into the Boundary Waters two days after the storm. He linked his reaction to the balance of nature and the changes that humans have wrought in some instances:

> "You would see where the bay used to be clear you would see all these trees just lying in the water. It should benefit after awhile, the shelter for the young fry. Mother Nature deals - you play her hand, she's a lot smarter than we will ever be - she knows what to do out there. You start messing around with Mother Nature - it's like with the wolves up here, oh you can't touch this, you can't - you know this area belongs to the wolves. But they took away all of his predators, this year they weren't too bad, they were pretty good, but last year they all had the mange - and terrible seeing them staving to death and stuff like that. You see the deer can get away from them without that snow. So they want that many wolves, they should take care of them - I just hate to see them suffer. They say well that's nature. I say no that's not nature, nature has a way of keeping everything balanced. They had the wolf, they had the buffalo, they had the elk, and they had the mountain lion up here. But you know we eliminated all that. Oh I kind of go along with Mother Nature, she knows a heck of a lot better than we do that's for sure. (384-394 see also 499-510)

He felt the storm was good for wilderness because it leveled old trees that were blocking light for the new growth. Although he did think they should go and plant red and white pine in some places rather than letting the "junk wood" grow up (487-492). Also one of the brothers said "this is going to sound really weird, in some places it made it better. You know that the old saying: is that you can't see the forest for the trees, it was literally true. ... Now you can see the area that the forest lies" (621-630).

And though the brothers did note that the storm changed some areas and it was devastating the see the trees down, they also felt "but then you got a lot of young plants coming up and you've still got your wilderness, you still have quiet and peace" so in a sense it really has not changed anything – "nature has a way of healing itself pretty quick" (464-465, 607-615, 634-636). And one linked it to the nature of life of life in this place: "It's just hard to explain; it's a different type of life, it's a little rougher in this area, but who cares. I don't hear horns beeping, I don't hear planes flying, and I don't hear sirens coming (laugh). Once in a while I will hear a loon, a wolf howl, but that's relaxing" (470-472).

When asked what he would remember most about the storm he noted the sense of community in response to the damage: "I think the way everybody chipped in and worked and got things done. You know, even the guest helped out" (516- 522). He did not think the storm hurt business, and in fact noted that some people came to look at the area afterwards, including people who were out there and reliving the experience (526-529). And though a couple of people came out of the storm saying they would never go out there again, others described it as one of the most meaningful experiences of their lives (664-669).

In terms of long term consequences, they did discuss a deeper concern about fire and the need to go in with a map and an evacuation plan (418-438). Though one of the brothers also felt that the fire danger had been over hyped, especially if they would just allow the FS to do what they have to do without going through all the hoop (570-581). He expresses some frustration with not letting "the guys who know what they are doing go on with what they have to do. Environmental impact statement may be proper at some times, but sometimes safety is more important (589-603).

Like several other of the respondents, one brother saw forests as resources to be utilized. However, he was supportive of protecting environmentally sensitive areas, having wilderness areas that were set aside, and believed that it was not feasible to get to the downed timber in the Boundary Waters (412-416). They were highly supportive of the use of chainsaws to clear away the damage. Their rationales were that someone could be trapped under a tree and a life was worth more than a little noise in the wilderness and that clearing trails in the off season would not take away from anyone's experience and would ultimately make the experience more enjoyable (440-447). However, they were supportive of limiting chainsaws and air rescue to usually severe circumstances (539-550). They were supportive of the use of prescribed fire, noting that their insurance company "sure appreciated it" (449-458).

Co-owner of outfitting business

She has been coming to the Boundary Waters since 1985 and has been a resident of Ely for 13 years (2-13). The Boundary Waters had been a favorite vacation site of her husband since he was a boy and this was where they had their honeymoon (17-18). Prior to moving to Ely they would make four 10-16 day trips a summer (23, 42-44). The attraction was the quiet, solitude, and ability to get away from stressful jobs, while the goal was to explore new places (34-40, 192-199). She has great appreciation for the beauty of the area: "Oh it's so beautiful. When you see it getting up in the morning and you see the mist rising up off the water off your campsite and you listen to the Loon. There is something special that happens" (149-155). She especially likes the "big ... stately" trees, the rock ledges, and lakes dotted with lots of islands (202-207).

They had always decided to retire here and decided to move here as a midcareer "quality of life issue" (80-90). And there are no regrets, she emphasizes the nature of the community, people are more neighborly and with priorities in life different from those of the big city and that to the people up here, nobody is a stranger (96-113). She notes

changes in the city of Ely since the 1980's, the increase of businesses and other changes that make it more welcoming to visitors, changes of which she approves (157-168). She views the Boundary Waters as something special, providing a unique experience that they would like to share with the people who come to visit (120-129, 212-223). She contrasts it with Alaska, saying the woods and water have a different feel and also referring to the history – getting the feel that so many other travelers – the voyagers, trappers, pictographs from Indians (133-138). To her it seems like "there is just something almost magical or mysterious, or spiritual out there that you can feel. It's an area that calls a lot of people back" (139-140). In her view, as long as the FS still maintains "the opportunity of getting to a place where you are alone ... [where] you can go squirrel yourself away, so as long as that is still in place, then the Forest Service is doing a marvelous job" (175-184).

She had actually been scheduled to go in the day the storm hit, but had missed the entry date (233-236). Her first concern was whether everyone was okay (237, 257-262). She had "quite a few" customers and there was only one back injury and one broken arm (259, 274). She went on a day trip right after the storm and expressed feeling "very, very sad" as well as amazement that no one was injured, and over all a feeling of awe (322-330, 343-344). She described an area where there used to be an eagles nest and wondering what they were going to do (331-334). But she also found it was "neat" when the eagles found a new place, a lone tree still standing (335-338). Here and elsewhere she also emphasized the parts that had not been damaged (327-330, 421-436). The theme of recovery seemed to drive her more long term reaction. Overall she described the change since the storm, not as a "bad environment ... [but] a changed environment (312) and refers to the fact that "it's not Mount Saint Helens, a theme she returns to later (317). She added:

> "... there is something about that, that timeless cycle of this place regenerating itself. It's been through -oh, you know, natural fires, lighting fires, accidents, winds, bad snowstorms, I mean things you know. It's just - it's never the same, but its changed, it might be better. It's green again; we've got small growth coming in, meaning you've got more browse for moose. We've have many, many more moose sightings than we had before. The older part of the forest that had grown down was getting way too something new and something different. There are wildflowers in areas where you hadn't seen them before, because now they've got sunlight. Birds are singing, they have seeds or something, you know in areas, where you might hear loons all the time you very rarely heard these little chirpy songbirds. And all those other areas, well there's birds singing. So it's a new kind of experience and it gives you some kind of a a sense of timelessness I guess maybe" (302-311 see also 565-574)

She also noted how the Canadians were thinking about making a trail through the damaged area so people can witness how the forest responds to the changes wrought by the storm (312-316). And somewhat in contrast to the theme of resiliency and recovery she suggests that one of the blessings of the storm and fire restrictions is how this has

made people more sensitive to how fragile the environment is (351-362). However later some comes back and elaborates:

> "It probably makes us all feel a little bit more responsible ... And that may be just a typical, maternal type of instinct ... but those of us who live here, we very deeply feel ... This is our backyard and we need to be on the front lines of helping protect it and sustain it and nurture it. And sometimes those things are out of your control, but you still have that feeling about it. So maybe it makes us a little bit more protective. To make sure that, that thing is going to be in the back of our minds...it's so fragile it can be damaged and it better not be our fault. You know, Mother Nature can do it's own thing on it, but we're not going to do anything to contribute to a problem of it. So I think that makes us more conscientious of our world" (580-587).

Overall, she personally does not feel differently about fire danger now that she did in 1985. It is a concern to her because there is only one road out and fire moves so fast (467-486).

Her impressions of the people coming out was that they were "shell shocked" at first but also had the feeling that comes with making it in the wilderness where you have no resources but yourself (295-297). Return visitors who came later would express sadness at seeing all the trees down (298-299). But she also felt that afterwards a lot of people came up " to see the wrath that Mother Nature could unleash" (289) and now some people come up to see how the forest heals itself (290). She also felt that many first timers no longer notice the effects of the blow down (300) and that 98% of the visitors since the storm are not affected by the effects of the blow down, "there have always been dead and downed trees out there (373-376).... people come off the trips are talking about the fishing...they are talking about the beautiful campsite, they saw a moose, they saw a mom with babies. You know, so they are not dwelling on the fact that several years ago there was ... a wind. ... That just doesn't seem to be on the radar screens...as a big deal to people who are taking trips since the storm" (380-383). She feels the media has played up the damage side of things, making it look and sound like Mount Saint Helens making it sound "cold and uninviting and unbeautiful" while "the optimism of living in a wilderness, you know watching these cycles and stuff hasn't had enough good press" (388- 396, 415-418). She also refers to a FS video that communicates the same message (397-399). While she believes "there is a reality that has to be conveyed to somebody of what they are going to encounter ... it doesn't look like that anymore. It's renewing itself, it's rebirthing itself. So there are all kinds of positive things that happened out of this and that spirit, that's the Ely spirit" (400-411).

She feels mostly her visitors, many of whom are repeat visitors, adopt the same optimistic perspective that has: "their appreciation of the wilderness has only gotten stronger as a result of what happened in '99. ... I don't know how to describe it, it's just that they realized how special this place really is and they don't seem to have a problem with seeing what happens as it ages and it gets reborn" (492-517).

She felt using chainsaws to clear the portages was okay because of safety and the fact that it made common sense – it would have been an impossible task with hand saws (519-536).

Ely Resident and Outfitter

Describes himself and his wife as people with a passion for paddling with the Ely area being the Mecca. They have been canoeing for 16 years and had always planned to retire here, but 6 years ago they had the opportunity to move here, created by careful planning; saving money, and motivated by the desire not to put it off until retirement, and so they "made it happen" and moved to Ely with the intent of being as close to canoe country as possible (13-23, 110-112). Two years ago they spent four months canoeing and covered perhaps 80% of the Boundary Waters and 90% of the Quetico. They intend to do that again (36-55). And though he has paddled in Alaska, Iceland, the Ionian Sea in Greece, and along the Exumas, Bahamas, if he had his choice he would take the Boundary Waters and Quetico any day (198-206). In terms of importance to his life, he puts only family, faith, and friends above the importance of the Boundary Waters and Quetico to him (187-193). Though he loves both areas, of the two he likes the Quetico more because it has more of a wilderness feeling – fewer people and the use does not show as much (e.g., erosion), no boardwalks and less maintenance of portages, and freedom to camp where you wish (though people still end up using the same sites) are reasons he gives for the preference (301-316).

While other people emphasize the solitude, getting away from it all, and the beauty as big draws of the Boundary Waters and he acknowledges that is part of it, he says "the best thing is my whole life changes, everything about how you relate to life changes" (85-87). He describes being more in tune with your surroundings, attention to weather patterns, and simplifying life (88-102, 127-145). He also speaks of the importance of the time needed to get immersed in the experience and refers to two weeks trips as leaving you with the feeling you were just getting into the wilderness mode (113-122).

He prefers to the Ely access region rather than eastern or Grand Marais area because it has a different feel. Several factors contribute – partly because you have access to 2/3 of the Boundary Waters with lots of options, partly because there are fewer crowds, and partly the view that the Ely area has a different feel is "quintessential Boundary Waters, you know, the Canadian Shield, Granite Rock, Big Pines, you don't have the elevation changes" (42-45, 59-63). But he also now lists the impact of the storm, noting the eastern region was hit harder. He notes that makes the experience more difficult, that the area has been changed for a lifetime in a way that "changes the trip. It doesn't make it less or worse, it just makes it different." (68-72). He suggests whether the storm is considered a detriment depends on what you are looking for in a trip – he and his wife are not into fishing, they like to explore see as many lakes and trees as possible, enjoy the aesthetics and the storm has impacted the aesthetics (73-79).

He was in the office in Ely when the storm hit (215). The next day when he started hearing reports and realized what happened, he "literally almost cried" feeling devastated

both personally and professionally (340-343). But since that time he has come to feel that "it's not such a devastation" (344). There remains a sense of loss due to the loss of big red and white pines, his favorites. But he also comes to realize that this is normal, how forests regenerate and recognizes that the feeling of loss is one reflecting a limited human time frame of 20-30 years, which is really just a blip in time (345-355). He also links his emerging view as what is necessary when confronted with a reality that humans cannot control. "So the reality says that if you can't change something or if something comes that's beyond your control then you have to accept it and you have to deal with what is and not what you wish it would be." (473-482).

He notes that the Boundary Waters has changed forever for our lifetime and maybe a couple of generations, but the storm has added a new layer to the experience and understanding of the place. Change does not mean bad, even the catastrophic fires that may follow, when it is understood as part of the natural cycle. And people have to learn to relate to nature on its own terms (369-376). He links this outlook to an experience during a paddling trip when he and his wife were pinned for a while in the tent by a fallen tree after five thunderstorms moved through the area (377-387). At the same time he also characterizes the Boundary Waters as not being "true wilderness" or as being wilderness with "a caveat." True wilderness, he maintains, is a place humans do not do anything to change it. In the Boundary Waters we have campsites, latrines, prescribed burns, etc. (438-453).

The day after the storm he flew over the area to see what the damage was. Two weeks later he did his first post-storm canoe trip up into Moose Lake, Mirror and over that way with the express purpose of seeing the damage (215-229, 251). He described the appearance as devasting, likened by many people to a war zone (238-242). But in retrospect he also indicated that the visual impact was not a bad as he first anticipated and perceived immediately afterward when it was "raw ... fresh white wood exposed" (244-246). His first post-storm overnight trip was the following summer, the 4 month trip (251). He indicated that there was an initial draw to see the damage, but that he did find himself hurrying through some areas that hard hit, flattened, and made less aesthetically pleasing and areas with damaged aesthetic quality lost their appeal for camping (255-257, 320-321). And he further said that they had not paddled the area with the main swath of damage – he had paddled it before the storm, but not since, although he plans to go back there this summer (258-261). He describes the changes as being mostly visual – sometimes negative around campsites and portages, but also at times opening up vistas (266-278). He describes the impacted areas a feeling like a "different Boundary Waters" but still the Boundary Waters but also states the biggest part of the wilderness is still the same (290-295). He notes most of the places most special to him, which are in the Quetico, were not touched by the storm, and recognizes the feelings might be different for those who have memories of special places that were hit (283-286, 297-302).

When asked if he saw anything positive in the storm he responded that "the kind of damage that was wrecked on the Boundary Waters, it's not something anybody would ever want to see happen, but there are certain things that obviously are part of the cycle of nature that we can't change even if we wanted to and so, I don't know, I'm trying to think

of how you can see positive in it." (331-332). He describes, not having lost the Boundary Waters, but having "lost it as we knew it in certain places". A possible positive consequence may be that people realize that half an hour can change things dramatically and this may give people a greater appreciation of what they have (333-336). And he notes that while he probably will not want to paddle affected areas on as consistent a basis, "it doesn't make me love it any less, that's for sure. Even if I only could go to the blow down areas. If that was the only place I could canoe, I'd still go there because it's not just the aesthetics that give you the experience. You can have the same kind of experience, you know, in a totally different setting. It's not that it has to be a certain way for it to still be, you know, provide what a wilderness provides for you." (360-364).

When asked about management issues related to the storm, he expresses the belief that the FS cares about the area, its not just a job to them, and despite frustrations and differences of opinions, he tries to be tolerant and understanding of what the agency has to do (392-400). Asked specifically about the fire restrictions, he indicates that he is impacted as they cook by fire, but it is "necessary ... logical ... makes common sense" and "you do what you have to do" (410-419).

Director of a Camp

He lived for a time in Kansas City near tornado alley (569-571). He has been living in the area for 5 years and visiting the Boundary Waters at least 3-4 times a year since 1986 (5-13). He describes his current job, which allowed him to move to the area as "the best blessing I ever had" (25-28) and cannot think of wanting to live some other place (283). His trips typically have been 4-5 day experiences to see scenery in places he had never been before, fishing is just an activity for days when the wind blows (30-41). He describes his trips as "just a way to get away from people and society and able to just sit back, relax, contemplate, enjoy the scenery" (67-68). He describes the area as nature at its best and never knowing "what's going to come around the next turn, if you are going to be fortunate enough to see a moose, see a bear, to see an eagle fly over you" (241-243). Scenery is emphasized in his experience and as well as the opportunity to get an idea of what it was like when the voyageurs and natives trapped the area (96-100, 119-129). At length he talks about being able to experience this past era by doing 4 or 5 portages to get away from the crowds and contrasts the contemplative experience with those who want to plan out every minute of the day (103-182).

He contrasts the Boundary Waters with the "northern tier" in terms of use and remoteness measured in terms of distance from help. The Boundary Waters receiving higher use levels and being "not a whole long ways away from medical treatment" (184-217).

His reactions to the storm are predominantly framed from the basis of his professional identify and relationship to place. His initial response regarding his reaction to the storm was:

> "What a mess. What a mess to have to send people through (298-299). ... And, you know, you just sit there and shake your head, holy buckets, how are we going to be able to get it cleaned up enough that people are going to have fantastic experiences (308-310)."

As an example, he refers to a portage that used to be only 20 minutes requiring 3-4 hours. When asked about his response at a personal level he described an initial feeling of sickness followed by a recognition that "everything else is still here, there's just a few trees not standing anymore" (335-337). And then his professional side emerges again, referring to the relief for there being only a small number of injuries and the need to clean up the facilities and steer people to areas that are still accessible (338-348). He also referred to positive consequences of the storm – vistas opening up that were absolutely astounding, timber to build 1800's style buildings, new dog sledding and cross country ski trails (348-354, 615-626). And when asked about what he would he would remember the most about the storm his response was a combination of the power of nature and the impact it can have on people financially tempered with amazement that so few human injuries resulted (627-708).

Overall he does not think that there will be much of a change in the experiences as a result of the storm, noting that almost all of the portages are wide open again (437-449). He notes that people need to be a bit more safety conscious and may find trees they used to string bear ropes on gone so they may have to do little things differently, but they will still have a fantastic time (745-755). He describes the hardest thing for people to deal with is the loss of trees 125-135 year old that were knocked down at places special to them, stating it will take forever for that kind of tree to come back. But he also notes "that's nature, it does happen that way" and the sense of loss gives way to a feeling of fortune for being able to have seen those pines when they were standing (406-418, 577-580).

He did perceive that more people are going west rather than east to avoid the blow down areas (476-481). But he also noted people who specifically wanted trips to the blow down to see what 100 mile an hour winds could do, and that these people came back characterizing it as a great trip (482-486). However he did feel that they lost perhaps 600 people in 2000 due to concerns about fire danger which was played up by the media (449-477).

Overall he was very please with the FS response to the blow down (516-532). He was pleased that the FS came out and said they were going to use chainsaws to clean up the mess despite the "tree huggers." However he did think more of an attempt to salvage timber would have been worthwhile, afterall it was a logging area before it became this pristine wilderness (538-562, 716-733).

An Ely Resident

The Ely area has been home for 25 years although his job has required him to travel a lot (13-19). He was attracted to the area by the wilderness – roadless, motorless, and wolves

(23-25). Though he loves the locals, grew up in a small town, he values the federal wilderness designation that provides a "blanket" of protection from angry local politics ("the constant drumbeat of hating environmentalists. Get out of my...this is mine...get out of here") (32-54, 95-99, 185-187, 655-668). He is not sympathetic to the perspective of the locals who constantly laugh at the regulations and say "well if you logged it it's not a wilderness..., well yeah [he replies in turn] ... so what" (69-71).

The qualities he values about the Boundary Waters are spiritual "the deep ... healing power that nature has" (58-62). Traveling by canoe is magical, and you can carry a lot more weight. And the animals – being able to hear a wolf howl even if you cannot not see it, just to know it is there. Being able to get the sense no one has been there (even though you know thousands of people have been there. Keeping things simple, running under your own power, a slight sense of danger. And the silence" (228-252). Wilderness is a place where you do not hear motors. But here is the compromise, recognizing that motors are allowed in much of the Boundary, makes it not a wilderness (63-68). Recognizing that "it's all about money" – the motors, the tow boats (time is money), a highway of motors - he dreams that some day they will figure out how to make more money without motors than with them (138-144, 148-177). Though when it came to clean up after the storm, he thought it foolish they did not use more chainsaws (and motors to get the crews in) (681-690). He indicates he spends little time in the Boundary Waters itself because of the noise. He would spend a lot more time up there if it were not for the noise (77-94) and prefers the Quetico because motors are not allowed there (134). It is magic and the center of the Quetico is where he likes to go (266-270). In addition to the absence of motors he values it as the arch-type of the "Canadian shield landscape as it was...as it should be." The trees around here are teenagers but there the trees are 130, 200, 400 years old (274-289).

Here he refers to the storm, which caused the loss of half (not a precise figure) of the old growth trees in the Boundary Waters (307) - really big pines, eagle nesting trees, trees with great scenic value (350-351). His feelings from the storm are something he struggles to know how to describe (427). He made an analogy to September 11, though struggling a little with the idea that loss of human life changes the context a bit, still that is the way he felt (359-362). He also referred to the loss of his mother at about the same time and noted "the storm affected me as much if not more. And my mother passing away was a big deal and it hit me hard" (424-426).

He was out taking photographs in an old cedar wood when the storm hit and described the eerie change in the cloud color. They got out and back to the house just in time to watch trees bending like fishing poles leaving him "freaked out" and with a feeling of disbelief (392-423). The day after the storm he flew to look at the forest and he was so "blown away" he had to stop taking pictures (338-339). He notes that on a canoe trip it does not look so bad because the shoreline was not hit as hard as the inland forest (340-349).

It took him two years "to get over it" (363). In fact he ends the interviews by stating that he is "pretty well over it now" (730-759). However, his responses throughout the

interview suggest that it has been a struggle for him, and in fact, continues to be a struggle in some ways. He used to climb trees and ride the wind like John Muir, but now wind makes him nervous. He refers to a recent wind storm generating a feeling analogous to a Vietnam veteran hearing a helicopter – a symbol of war (364-372). He recognizes perhaps he was more affected because he was sensitive to the trees, came up here to hug them (379-381). He suffered loss on his property. He refers to a beautiful trail that once went through old growth, "now I don't even think any of the trail anymore it's like a prairie out there" (382-383). Overall he does not visit the areas impacted by the storm as much as he used to (503-523). And he refers to a place special to him before the storm that he is not interested in anymore (560-580).

He notes "it is exciting to see nature change, if you're a scientist and you'd be detached. ... but I've photographed this island a lot. And I don't even like to go up there anymore, it kind of bothers me, I get uncomfortable" (511-514). He struggles to explain what makes him uncomfortable. The easy answer, he says is that he likes the classical, romantic, untouched landscape (528). But it is deeper than that, as a photographer he takes pictures that make people feel good, he enjoys taking photographs of things that are balanced and healthy. Though he corrects himself here and indicates that this is not necessarily unhealthy, it is "very complex ecological story." Therefore, it must be:

> "visual part makes me nervous, it's a war zone in a sense. That's the...that's the romantic in me...the naturalist and scientist part of me is kind of intrigued by it...watching to see what is going to happen in the next 10 years. But I don't go into the Boundary Waters to think about science or progression so much" (529-541).

He also refers to himself as "an order freak" and that has something to do with his reaction. Fire is more orderly and creates an openness where as the wind "just made it looked wrecked (578-595). And he does describe the feeling of loss a "a sense of normalcy and order that is the epitome of kind of a natural world" (613-615).

Further, he notes that this country evolved with fire not wind, fire is part of the natural scheme (578-595). As for the storm though, he cannot quite get over it in a large part because "I don't know if it was man caused or was it just very odd anomaly of nature." And then he adds, "well, I'm convinced it's a product of climate change" (492-493). He refers to a feeling of anger "because I do think it was man caused due to global warming, atmospheric phenomena" which he links to poor political leadership of Reagan and Bush (447-469). And though he acknowledged some media coverage, he felt it really strange that "no one really knew, nobody really paid much attention" (470-479). He recognized that many "nature lovers" handled the loss by attributing it to nature:

> " it was all about nature so - live with it alter our patterns worship, take the heat, take the bad with the good. But the nagging thing at the back of my mind is always, that it's man caused. And that's when I become resentful and angry, because it's going to keep happening" (480-482).

And he distinguishes his response to this event to Mount Saint Helens which is different and exciting to him which, though cataclysmic, is clearly an event of nature (545-546). He describes himself as "anti-man" in the sense of putting humans as something more important than nature (547-555).

Original Interviews

Retired Outfitter Has Been Going to Boundary Waters Since 1962

1: I: Interview with retried outfitter north of Eli, xx, who is now in the process of building a log home with salvage logs from the blow down.
2: So go ahead.
3:
4: R5: You want me to say that again?
5: Do you understand what I mean by that.
6: I use the Hawaiian islands because there's volcanoes going on there right now that's rolling through subdivisions and increasing the size of the islands and people want to call that a disaster.
7: That's how the island got there.
8: That's just nature doing its thing, we were just talking about that.
9: So the 4th of July storm was a disaster, a big parentheses here is if it's a disaster, then the Hawaiian islands are a trash pot.
10: But it's obviously not a disaster because the Hawaiian islands is not a trash pot, just nature making another island.
11: If you wanted to find something wrong with that 4th of July storm, you gotta go back to the mismanagement of the U.S. Forest Service.
12: The only reason we have all of this blow down wasted wood fiber out there is because we failed to harvest it in the name of all kinds of short term ego artists that don't want it done on their clock.
13: They want it to be pretty on their clock, they don't care about future generations.
14: That's my phrase of the short term ego artists.
15: They're only interested in saving that little bunch of trees, just makes you feel good for your little chicken-shit lifespan.
16:
17: I: The effects I've seen of the storm haven't been really very discriminate you see patches of trees of all different sizes went down.
18: It doesn't seem like any particular type of forest management would've prevented that?
19:
20: R5: Well, the Boundary Waters should've been logged on a management basis through its conception until now.
21: Nature's going to take the gig out, one way or the other, fire, wind, drought, beetles, whatever.
22: But to that extent, you can't go backwards, so if you were to go forward and look at that 4th of July storm, the question that I pose to short term ego artists labeled environmentalists, if you don't want to go harvest those 27 million trees that blew down, 17-25 million is a estimate, if you don't want to harvest those trees that are lying on the ground creating inconvenience to the campers and wildlife and increasing the fire danger, if you don't want to cut those trees, then I'll hand you a chainsaw and you go cut down a tree that has a bird's nest in it.
23: It's the only option you've got.

24: We're not going to not build our homes and our garages and we're not going to not print our daily newspapers.
25: So the demand for wood fiber is the same.
26: So by harvesting that blow down, you essentially leave 17 million trees alone, on the stump right?
27: Because if you don't harvest those you've got to get them somewhere else because you're going to build your neighbor's garage.
28: You're not going to not do that.
29:
30: I: Okay, you kind of sound like you're talking about two different things, logging as a management tool and now you're also talking about salvage logging?
31:
32: R5: Well, what I'm saying is we can't go back to what brought us to the point of all these trees blowing down.
33: But had the forest been managed, we'd have a road system there, we'd have a more economical way to get them out, we'd have a mindset that this is a resource.
34: Now if you look at the blow down that took place outside the government management area of the Boundary Waters, 99% of it is cleaned up and used.
35:
36: I: (inaudible).
37: I've seen some of the prescribed burns.
38:
39: I: Well, I've done some prescribed burns and the prescribed burns are at Snowbank Lake and I saw the ones up here, we had the burn right up to the fire line, right up against the wilderness boundary and that happened last fall, last summer, that burn.
40:
41: R5: Yeah, and you know, if you keep it somewhat in perspective of maybe we ought to just stay with North America ??.
42: The fire helped in Yellowstone a few years ago burned a greater area than the Boundary Waters is in its entirety.
43: So…
44:
45: I: Well, I think I need to get a better idea of your value of the Boundary Waters as a whole so I can get an idea of your management, where your management ideas come from.
46:
47: R5: Yeah, the value of the Boundary Waters is priceless.
48: It's a great place.
49: We need more…we need to expand our natural areas, make it mandatory, you know, for inner city kids to get there.
50: That's an incredible value.
51: My view of the U.S. Forest Service is horrendous.
52: They're idiots.
53: You can't look at what they do here objectively and say it's correct.
54: I mean, you can look at it through rose colored glasses, you can look at it through, I spent my life with my nose in a textbook and say, yeah, that's okay.

55: Do you understand how the thing works?
56: The U.S. Forest Service is wrong.
57:
58: I: When you said we need to expand our natural areas, what does that mean?
59:
60: R5: Wild areas, natural areas…
61:
62: I: So you mean protected areas?
63:
64: R5: Yes.
65:
66: I: What are you looking to protect?
67:
68: R5: Well the government's the only person that can do it, you know.
69: I mean, you know, they're doing a job that needs to be done.
70: Are they doing it correctly in my opinion?
71: No.
72: Are they doing it as best as they know how?
73: Yeah, they are.
74: Are they doing it right?
75: No.
76: When you talk about a wilderness area versus a city park, a picnic area, the U.S. Forest Service in this wilderness area, they put boardwalks across our mud puddles.
77: All right, so you don't get your feet wet, you don't disturb the flora and the fauna by slogging through the mud.
78: That's asinine.
79: What disturbance does this boardwalk create?
80:
81: I: I thought they have been pulling all the old structures out?
82:
83: R5: Yeah, when ?? won the golf team with Eisenhower, they decided to make it a wilderness area.
84: And when they first started, they had signs on the portages and picnic tables, they had canoe rests, they had all this stuff.
85: It's just government spending money, making jobs, filling out reports.
86:
87: I: But haven't they taken those out?
88:
89: R5: They took out all the physical structures, all the houses and taverns and that kind of thing and the docks.
90: So they've taken out…now these are things that they've put in like the signs and picnic tables, canoe rests, boardwalks, little wharfs, docks.
91: They've taken 90% of that out but they still continue to put boardwalks in.
92: They put toilets in, they put these little outhouses, you know.
93: The single worst thing you could do with human waste is put in a shallow pit in the shade.

94: The single best thing you could do with human waste is to scatter it all over the top, I emphasize top, absolutely breaks down, sunlight loves it, bugs like it, no environmental issues at all.
95: The issue with crap all over the top of the ground, is right here and our view, our aesthetic view, the best thing you can do with the woods is look at how the woods runs.
96: When moose crap, they just walk down the trail and crap.
97: Very short time after, it's all gone.
98: Put it in a shallow pit in the shade, bacteria grows, it's horrible We do that because we want it pretty and we don't care.
99: Our jobs, our life, U.S. Forest Service is more important than the woods.
100: Then we build fire breaks at the campsites and establish campsites which you only have to camp here creating far more impact per site, erosion, and the beauty of that is you can go down to Mortar Lake, Basswood River, Crooked Lake, Knife Lake, Birch Lake, Basswood Lake, and just go from one side of the lake to the other, visit a Canadian campsite and a U.S. campsite.
101: Canadian campsite you have...Canadians don't do that.
102: They don't do box privies.
103: They don't do fire grates, there are far more campsites per lineal mile on the Canadian site than are on the U.S. side.
104: You can camp pretty much anywhere you want to as long as you don't cut down any vegetation.
105: So there's a lot more established campsites on the Canadian side per mile than there are on the U.S., dispersing the traffic, allowing plant material to get grown back, you crap on the ground, you dig a little hole, whatever you want to do.
106: On the U.S. side, the government says you go right here, use this area to death.
107: But they have to do that because they've got all these jobs and they've got all these payrolls and they got all these credentials and they have to do something, they feel.
108: So they do these things.
109: And they shouldn't do them.
110: The boardwalk that they put across the slues and the bogs and the junk, I've argued that point with these guys and let's say that you lose that argument in the name of historical thing that they're trying to preserve or a particular type of flora or fauna that's...and I won't argue that.
111: There could be a situation that that is what needs to be done.
112: And I want to emphasize...I'll get back to that.
113: The other thing that all of these things do is that they facilitate the wrong posture and the wrong people.
114: You are inviting people to come here who want all these amenities and don't appreciate nature.
115: They want to have a toilet to sit on, they want to have a fire grate, they want to have a boardwalk.
116: You go on a canoe trip and you walk and there's mud in the portage and it comes up to your crotch, that's what it does.
117: And if you don't like it go back to the city park.
118: So, anyway, the boardwalk.
119: Let's say you lose the argument to have boardwalks.

120: I'm willing to concede on some boardwalks, then you build a boardwalk out of what is there.
121: Black spruce swamp, white spruce, birch, poplar... Not the government, they go back to the office and they order grade stamped treated lumber which cuts down some trees and takes them to a chemical factory that has every scull and crossbones on the planet earth and they sink the board in there and they soak all of that up and then they bring it to the Boundary Waters and nail it down.
122: Build it out of what is there.
123: And then 20 years from now when those boards rot out, where did all those chemicals go?
124: Where did all that stuff leech out to?
125: But the government can't do that, see, because they're tied up with this well, you got to buy, you to have a work order, you have to have a purchase order, you have to have a contractor.
126: If you need a boardwalk there, go there and look around, yeah, there's some spruce, there's some poplar and let's build a boardwalk here.
127: And it would look better, it would have some aesthetic value.
128:
129: I: How long have you lived here?
130:
131: R5: 1962.
132:
133: I: You're a retired outfitter?
134:
135: R5: Yeah.
136:
137: I: When did you first start using the BWCA?
138:
139: R5: March, 1962.
140: This summer is my 40th reunion...I was just with some friends last night that somewhat re-enacted my trip.
141:
142: I: Tell me about your first trip.
143:
144: R5: It was off Moose Lake just short of the Canadian cusp into Sucker Lake and went across into Canada the next day and went up to the north bay of Basswood in a paddle canoe, go around and just nothing out of the ordinary just a straightaway trip.
145: And I've been to the Boundary Waters ever since.
146: As a matter of fact, I've never not been.
147: Sometimes it's in the capacity of a water canoeing trip.
148:
149: I: What attracts you?
150:
151: R5: Because it's next to the Quatico.
152: I do very little canoeing in the Boundary Waters.

153: I do canoe in the Boundary Waters, but the issues that we just talked about or that I just talked about, I don't need it.
154: Quatico is a beautiful place that you don't have to feel like the federal government's out there wiping your butt.
155:
156: I: I've heard that from a lot of locals.
157: That they avoid certain areas because it's where the most tourists are.
158: Anyway what activities are you most involved in?
159:
160: R5: Well, I've always been guiding some kind of an outfitting in the Boundary Waters.
161: And had a lot of guests that, you know, wanted to go to the Boundary Waters because they had people in the group that wouldn't go if they didn't have a toilet.
162: And when I've guided trips in the park...and I mean, all this comes from 40 years of being here, okay. I'm not a Johnny-come-lately.
163: You guide somebody on a canoe trip out of Ely where you start in the Boundary Waters and you go to the Canadian side and come back, so you're 8-10 days up in the Quetico and you're bush-whacking through the mud and the portages aren't brushed and, you know, you've got gorgeous little campsites, when you come back to the U.S. side, boom, you hit that first portage and it's brushed, there's erosion, bars, all this stuff and when you camp on the U.S. side on the way out, you can see it in the entire group, it runs through them like the worst case of diarrhea.
164: Everybody just totally loses their woods behavior.
165: U.S. Forest Service is here, I can camp over here, you know, they're going to pick it up.
166: They got portage crews.
167: They got campsites.
168: I mean, that's not a good example.
169: They don't generally do that.
170: But the group, you know, we quit talking about the northern lights and we start talking about how long it's going to take us to drive back to Chicago.
171: Now that's the last night and you would maybe expect that.
172: But if my group camps the last night on the Canadian side, there's two ways to end that trip.
173: I can keep it all in Canada and then your last morning you wake up and paddle all the way through the Boundary Waters and essentially have a lunch coming out.
174: You don't have that.
175: If you camp on the Canadian side that last night, people are like, I really don't want to leave here, it's great, they're loving it, they're hoping for another set of northern lights before they leave.
176: But if you make that last camp in the Boundary Waters with these nickle and dime amenities that the Forest Service puts out, we've talked about those, they don't care.
177: They're not on a wilderness trip anymore because they've experience wilderness without amenities, when they come into it, "let's figure out how early we got to leave so we don't hit Dan Ryan rush hour traffic."
178:

179: I: Well what are the best parts of taking trips in the wilderness?
180:
181: R5: A lot of it is introducing people to the wilderness.
182: Introducing some kids catching fish, that can actually catch fish, fry them up and eat them.
183: Have people see the northern lights, hear wolves howl.
184: It's a very rewarding experience to be able to do that.
185: And identify that with their guide.
186:
187: I: How do you decide what you want them to be a wilderness guide?
188:
189: R5: I've tried regular work once.
190: I don't know, I feel very good out there, It's almost effortless for me.
191: I'd rather sleep on the ground than be in a house.
192: Its just real peaceful.
193: Northern lights or catching big fish or jumping in the lake on a warm day to cool off.
194: It's pretty precious.
195: It's real.
196: One of the things that has gone on over the past 40 years that I've been here is it's getting exceedingly difficult to have ten day or longer canoe trips because the other outfitters and resorts and tourist places ??.
197: When I first started here, when I was a kid, we just did ten day canoe trips, that's what you did.
198: 12 day canoe trips.
199: And all of a sudden we got too busy, 3 or 4 days, 5 days.
200: A lot of what I've talked about is you only get a tiny sliver on a 4 day canoe trip.
201: There's some camps, some youth camps that part of their mandate, part of their code is like 21 day canoe trips, 15 day canoe trips.
202: And they talk about that poetry that you truly, you take on a different psyche, it's like you get a different posture.
203: 5 or 6 day canoe trips the outfits do now, that's what I ended up with in my business, I couldn't get people more than 7 days.
204: 7 days is like, whoa, 3 or 4 days...you don't get into it, your head doesn't get into it.
205: You go on a 3 day canoe trip, the day you go in, you only got one full day and you're thinking about coming out.
206: That's not bad, but it's a whole lot better, our society would be a whole lot better if we could get back to legitimate relaxing, what I call a legitimate vacation.
207: Now Europeans...U.S. is way behind.
208: We are so far behind the world in vacations, it's sad.
209: Europeans absolutely take months per year.
210:
211: I: What's special about the Boundary Waters for these things like northern lights or catch fish, you can do those in other places but why the Boundary Waters?
212:

213: R5: Well, one of the things that Boundary Waters...you asked a question and you've done it a couple of times...the thing that makes the Boundary Waters work for me is that it's obtainable...also I've spent time in the Rockies and the Sierras, those places are more physically challenging, maybe it's almost an elitist sport to be a mountain climber or you have to have a different...the majority of people, a larger percentage of the people can enjoy the Boundary Waters and have a wilderness experience.
214: You don't have that big a slice of the population that can go hiking in the Tetons and they've got roads through Yellowstone but, I mean, to do a 40 miles backpack to get up to this glacial lake.
215: A lot of people are very comfortable with the Boundary Waters that couldn't do the other parks.
216: So the Boundary Waters, when you say why is it...it's obtainable.
217: 360 days a year you can use it.
218: And that's important.
219: Mountains are fun to look at.
220: Ocean is another frontier, but you're not going to get a lot of people to be divers.
221: You're not going to get a lot of people who are financially or skillfully able to operate a sailboat and the ocean has just as much environmental wilderness, poetry as the Boundary Waters does.
222: But it's unobtainable.
223: You go out to the Pacific Ocean say I'm going to spend 10 days there, you know we can take mom and dad with little or no experience camping in the wilderness ...(END OF SIDE A)... would be the other extreme.
224: And how many people can afford or master the skills of the diver and the sailor.
225: And I'm just saying diving and sailing as a way to experience the ocean.
226: Walking down the beach is not experiencing the ocean.
227: But the Boundary Waters you can get it in, you can get engulfed in, immersed in it with reasonable health and skill level.
228:
229: I: Are there places that are special places for you in the Boundary Waters?
230:
231: R5: No.
232: What did you do for the New Year's Eve of the millennium?
233: What did you do?
234:
235: I: I was with a whole bunch of friends in Madison, Wisconsin watching the fireworks show they had shooting over Lake Monona.
236:
237: R5: That's good.
238: You ask me a question, I ask you a question.
239: I just want to get the mindset of Y2K and the world coming to an end, stockpile water and batteries.
240: Paula and I hosted a party at Minnesota's oldest tree, 1,100 year old white cedar.
241: So this tree was 100 years old at the beginning of the millennium.
242: I figured, heck, if something's going to happen to planet earth, it ain't going to happen there.

243: We wanted to be totally non-sensical so put up the volleyball net, played golf and volleyball while the whole world was worried about the world falling apart.
244: That's a special place, 1,100 years, living tree.
245:
246: I: What about the other main activities that you were talking about?
247:
248: R5: Yeah, that only comes around once a millennium.
249:
250: I: Yeah, are there special places you like to do those activities you were talking about before?
251:
252: R5: Yeah, there's historical sites that always draw me.
253: Hudson Bay trading posts up there,old logging camps, quarries on Knife Lake, some of the only known prior to Christopher's trip in all of North America.
254: It's not uncommon to find tools made by different Indian cultures scattered up and down North America.
255: The arctic circle all the way down.
256: So it could've been used on an expedition, could've been stolen, could've been anything.
257: But from Knife Lake...and we're talking quarries that are smaller than this living room.
258: They found bricks, just a chunk of them as far down as the Gulf of Mexico, all the way down the St. Lawrence Seaway.
259: As a brick.
260: And it was bartered...the theory is that it was bartered as a brick, you know, traded, so when you got it down to the Gulf of Mexico, you could make tools to skin and kill alligators which wasn't necessary functional here, you don't have a lot of alligators.
261: But if you sold a tool, the tool would start to wane off in value as the need changed.
262: But if you barter brick... Knife Lake was so valuable that the entire North American continent knew about little tiny Knife Lake.
263: It's the only place it's found.
264:
265: I: So what makes these places special to you?
266:
267: R5: I don't know, that's a good question.
268:
269: I: It sounds like their uniqueness, historic value.
270:
271: R5: They identify why this place is special, it really doesn't answer your question, in my mind.
272: I mean if you didn't have those things, the landscape wouldn't support an 1,100 year old tree, water, drought, any natural passage through a North American continent that would facilitate a Hudson's Bay post.
273: You wouldn't just put a Hudson's Bay post out in the wheat fields of Montana.
274: It'd be close to some trail.
275: So these things are why Boundary Waters work or happen.

276:
277: I: Is it possible to say how important the Boundary Waters has been?
278:
279: R5: Well, real hypothetical, I'm certain if I wasn't involved in the Boundary Waters, I'd be in some other wilderness setting.
280: I wouldn't be a stockbroker.
281: I was in Canada for five years and outfitted North of Adikokan, North of Quetico.
282: That question you asked is, back in 1962 if I'd have taken a trip to the Grand Tetons, Snake River or Yellowstone or any of that, I would probably be right there.
283: I was 16 years old, we were impressionable, all those poetry's.
284: At 16 years old I could've taken a trip through to Alaska and I would've been there.
285:
286: I: Well, I'm going to shift gears a little bit and talk about the storm now.
287: Where were you when the storm hit?
288:
289: R5: I'm not embarrassed at all, we were at a John Dylan concert.
290:
291: I: Bob Dylan.
292:
293: R5: Bob Dylan.
294:
295: I: In Duluth.
296:
297: R5: In Duluth.
298:
299: I: I remember that, I almost went there.
300:
301: R5: It was a good concert.
302: I just find that hilarious, what were you doing during the storm?
303: Well, ??
304: Well, we were driving home.
305: (inaudible)
306:
307: R5: Yeah, we were driving back.
308: Here's your woods, totally destroyed.
309:
310: I: What were your reactions?
311:
312: R5: Well, we heard about it on the radio for two hours driving up here.
313: The news media loves to play to the negatives.
314: They had Ely and most of North America blown away.
315: And we pulled into town, went to our business and we had two vans that we had left three hours ago on a 30 minute trip, they're not back yet, all filled with boy scouts.
316: We had people on highway 1.
317:
318: I: Another trip was up on the Echo Trail.

319:
320: R5: Yeah, and we had one gal who took a group out on the Fernberg and she said there were just trees falling down all around her and she just stopped and when the trees quit falling down, they got out and started sawing them and moving them.
321: And of course, you're asking what we're doing.
322: We're sitting back here going, what's going on?
323: We didn't know which direction to even take off and help.
324: We had to stage delivery and pick up for all these different people.
325: By the end of the day everything had calmed down and there was no body count, no deaths.
326: There was a couple broken legs, I think.
327:
328: I: There was one with a bad head injury.
329:
330: R5: Yeah, when you walked through and see all this stuff that flew around...so we put that together.
331: We had some minimal damage, breakage in our store, private residences but pretty insignificant.
332:
333:The scary part was waiting to hear from your customers because you knew what routes they were on and knew they were out there but jest had to wait but nobody got hurt.
334:
335: R5: Although it's funny, I mean, where the storm was was pretty obvious and where it wasn't (inaudible) the Forest Service put a sign on the public landings and notes on people's cars saying when you get in immediately call back home, let people know you're okay.
336: These people that weren't in the path of the storm they had no clue what's the problem here, what's the deal.
337: And it was a real keen line, 5 miles, 2 miles.
338: So it kind of redefined the word "luck" you know.
339: That's true of a tornado, goes down one side of the street and tears everything up and the other side of the street has just a few leaves.
340:
341: I: So how long did it take for you to start thinking about what actually happened?
342: I mean, I'm not talking an exact amount of time.
343: Did that start to run through your mind after you found out everybody was safe?
344:
345: R5: Yeah, we started realizing that there wasn't any human loss involved in this thing, I started processing the timber value which would be harvested.
346: I got really upset when I drove down roads and whatever and there were people just cutting stuff up into little blocks that were too short to send through a mill and too long to put into fireplaces, you don't burn a lot of pine in the fireplace anyway.
347: Just for the immediate...get me down my driveway, you know just whack up a beautiful 100 year old white pine.
348: When just putting half a days effort into it could make a nice saw log.

349:
350: (inaudible) It changed a lot of people's trips, they had to re-route (inaudible).
351:
352: I: What were the reactions of your clients, people who were out there and people who were planning to come during the rest of the summer?
353:
354: R5: I don't know that we had anybody cancel.
355: The following year there was a lot of people hedged their bet, yeah they didn't want to come because of the blowdown, fire danger
356:
357: ??: (inaudible)
358:
359: R5: Yeah, when it started raining, they tried to do prescribed burns and couldn't get them lit.
360: I mean, it had, it was a little bump in the radar as far as guest use is concerned.
361: There were some people that didn't come, that's good.
362: They're the pretty people.
363:
364: I: Did their stories change at all?
365:
366: R5: Oh, absolutely not.
367: They were high on the northern lights, campfires.
368: They'd say boy there must have been a heck of a storm, glad I wasn't here, amazing nobody got hurt.
369: We saw huge trees turned over…They went in with chainsaws and cleared a lot of that up, made portages passable and all that kind of stuff.
370:
371: I: When was the next time you personally got in the areas?
372:
373: R5: A couple days.
374: We had some people lost a canoe blew away.
375: And I took a chainsaw with me.
376:
377: I: Where was that?
378:
379: R5: It was off the Isabella but it was a real obscure camp.
380: I carried a chainsaw with me for two or three weeks after that.
381:
382: I: When you first got out and saw the blow down how did it feel?
383:
384: R5: I felt that it was an opportunity for the Forest Service to demonstrate good woods management, get this stuff loaded up on trucks and sent to the mills.
385:
386:
387: I: How could they realistically have gone in and done that?
388:

389: R5: Well, the whole Boundary Waters was logged once before and when it was logged prior to World War II, it was done by any stretch of the imagination, pure rape, no environmental impacts, no shoreline protection, no reforestation, no erosion, just take the trees and leave.
390: Stomp down the grass.
391: We're not talking about a virgin, we're talking about someone who's been had very violently.
392: So just go in and log it, these guys do this all the time.
393: I mean, there's nothing magical about the line around the boundary waters.
394: They should have logging in the Boundary Waters every winter.
395: You don't need to log in the summertime, more practical to log in the winter, the roads are cheaper, better on the equipment, etc.
396:
397: ??: And they could have gone in that first winter with natural disaster funds and gotten it our and done it very quickly.
398:
399: R5: Yeah, and now it's just junk.
400: It goes back to what I started with, if you don't want to harvest those trees then take this chainsaw and cut down that tree that has the bird's nest in it.
401: We're not going to not use.
402: We're going to fill our need for wood fiber.
403:
404: I: What about the logger that says, yeah, great, you're going to cut that tree down, it's a lot easier to get this one than to go 40-50 miles back into the Boundary Waters where there's no roads, where the lumber's been splintered because it's involved in this blow down.
405: I've heard stories that it just wasn't economically viable to go and get that wood.
406:
407: R5: They say that a lot of private residence that all they had was junk.
408: I talked about, I didn't want to see a saw log cut up in short blocks that couldn't be set through the mill.
409: I'd say 50% of those were junk, it was splintered that you couldn't do that with. That's not lost as long as you can ship it, get wood fiber and make particle board pretty much with anything.
410: The U.S. government owns that and they have a responsibility for that.
411: And if you've got all these trees down and if you can't get a legitimate sale.
412: Say, okay, I need bids to go out and log this, instead of people saying, yeah, I'll pay you $5,000 to log Moose Lake, they tell you we're going to charge you $10,000 to log Moose Lake.
413: Then you can see if somebody will only charge $9,000 to log Moose Lake and then go do it.
414: I mean, you have to pay the price, it's your property.
415: Are you a good steward?
416: Or are you, you know, got your head up your butt.
417:
418:

419: I: Do you think logging the Boundary Waters would change the experience of visitors?
420:
421: R5: Absolutely.
422: It would have increased it ten times.
423: It's all been logged before, don't stay on the path of it's all pretty, it's never been logged, you know, there's logging camps and there's test pits from all their exploration for minerals, you know, holes in the ground all through the Boundary Waters.
424:
425: I: But those weren't the things that you said attracted you earlier.
426:
427: R5: No, but they haven't hindered it.
428: We...the people that enjoy the Boundary Waters is of the world, Yellowstone or whatever.
429: We only go there, or we only can go there because some adventurers went there first and 99% of the time, probably 100% of the time went there with pure gain and lust in their eyes.
430: Give me the fur, give me the gold, give me the trees.
431: That's why the road is there, that's why the path is there for you and I to go enjoy because somebody went there and took something.
432: And when they took it in that era, they didn't have a lot of knowledge about how to protect the environment issues.
433: That's what I'm saying.
434: Boundary Waters was logged once before with almost zero consideration for reforestation, shoreline protection or float the logs when the walleyes are spawning, we don't care.
435: You could log the Boundary Waters now with environmental issues up front.
436:
437: I: Okay so obviously you're pro harvesting timber.
438:
439: R5: Absolutely.
440: Because if you don't, you have to go cut down the tree with the bird's nest in it.
441:
442: I: How was the trip through afterwards compared to other trips?
443:
444: R5: It's physically more challenging with trees in the way.
445: I don't know how long it took the Forest Service to change...they have a special dispensation from the pope to carry chainsaws and cut the trees in the portages.
446: Most of us bushrats did it that afternoon.
447: I couldn't even get into the parking lot of this entry way without a chainsaw, that's out of the Boundary Waters and I chainsawed my way in.
448: I mean, how did it change?
449: It's just physically more challenging.
450:
451: I: How did it change the way you use the area?
452:

453: R5: Well, one of the biggest things that the blowdown did, you're asking how it affected me.
454: We did a trip or two since then.
455: There's this group of people on planet Earth who truly, truly don't know how to make love.
456: They got no concept of a good orgasm, they don't know how to curl their toes, they don't appreciate it.
457: They can't take in nature and be inspired.
458: That group of people have always advocated this low impact camping, leave no trace, no campfires.
459: Don't build campfires, don't build campfires.
460: Ruining the wilderness.
461: That storm gave that group of people a stump on which to stand on.
462: It gave them a point of safety...no fires, no fires, no campfires, no campfires, burn the world down.
463: Somebody that wants to camp that doesn't want a campfire, they got no poetry in their soul.
464: They're missing one of the essence of life.
465: Camp without campfire?
466: What's the purpose?
467: I mean, what's the reason to not have a campfire?
468: You don't appreciate the wilderness.
469: You don't appreciate a good partner, you don't appreciate the essence of what makes your heart beat.
470: When I camp there I have this little chart to see if I can have a campfire or not have a campfire.
471: They should've said everybody has to have a campfire at lunch and breakfast and dinner in the evening.
472: What does the fire do?
473: What does the campfire do?
474: It consumes burnable wood, lessening the fire danger.
475: You'd want to emphasize that.
476: You talk about controlled burns, management burns, why not do 100 million of them at night in a little campfire.
477: No campfires.
478: I have never understood that.
479: And when you ask the "theys" why they don't want campfires, the only answer I've ever got back is it leaves a permanent scar on the earth.
480: The charcoaled wood stays there for 100 years.
481: Isn't that great?
482: Now we have a track record who camped here.
483: I mean, it's ridiculous.
484:
485: I: Did any of the places that you were talking about before special places?
486: We're not quite sure why they're special, but were any of those places affected by the blow down?

487:
488: R5: I guess it's had an effect on all of it but nothing negative.
489: I mean, I felt honored or privileged that a lot of people asked me if the old tree had survived.
490: Somehow I'm the keeper of the old tree.
491: And then there was a lot of rumors it blew down, it blew down.
492: It's perfectly fine.
493: Have you seen it?
494:
495: I: No.
496:
497: R5: Around Moose Lake.
498: When we did our New Year's Eve party there, you don't have to go up too far, easily in a day's ski.
499: So the old tree survived.
500: And there was a few big ol' pine trees that used to use as landmarks out there that aren't there any more.
501:
502: I: When you go out to those areas, does it seem like a different place?
503:
504: R5: Oh, yeah.
505: There's views that are greatly enhanced now there's just this panoramic view and breeze under your canoe, and no bugs, and blueberries to pick and areas for deer to run around.
506: So there's some real value to them.
507:
508: ??: The vistas are incredible to see that far.
509:
510: R5: Yeah, the big fire over on ?? we were out like three years after the burn.
511: Beautiful.
512: Wildlife is certainly better.
513: Birds, flowers, It's not a negative at all.
514:
515:
516: I: But I mean if you can try to describe the a memory of a place that you used to go but now it's just so different, how do you…what does that make you feel?
517:
518: R5: Well, it makes me feel…I mean, I don't know, you've done a great job in the interview without leading questions.
519: I mean, I don't find it a negative.
520: I don't find it…you know, I mean, how do I find it?
521: I find it rewarding that it fits the bill, the only absolutes we have is there is no absolutes.
522: The only certainty is that there is no certainty.
523: It's always changing.

524: And the Polly Anna...I've got to have...there's a whole group...maybe the majority of people live in this methodical world where it's black and white and that's why they feel comfortable living in a subdivision where the street is always straight and the grass is always mowed.
525: There are people that...and maybe I'm in the minority.
526: Maybe the majority of people like that.
527: But nature's not that way and it fits my psyche perfectly.
528: I mean, there's places...look at the drought that we had in '76.
529: The drought of '76 was more devastating or landscape changing than the storm.
530: In fact you could walk across the Burnside River.
531: I mean, you could find pools of fish...eagles and bears were having a great time, there wasn't anyplace for them to go.
532: And the tree damage, the amount of trees that died in the drought of '76 was phenomenal.
533: I mean, whole areas of perfectly standing trees.
534: The drought of '76 probably changed a bigger area and caused more trauma to the area than the storm.
535: 4th of July storm lasted 20 minutes.
536:
537: R5: When we guide people from Europe in the Boundary Waters, they're always appalled at our mismanagement of our resources.
538: Their idea of managing the woods is they know where every tree is, whether it's mature or not mature and if it's mature, they harvest them.
539: If it's a tree five miles away, they go get it.
540: They hardly have any forest to manage, but...
541:
542: I: So you think that because these areas, you could argue that probably most of the United States has been harvested, altered, something extracted, but because it happened in the past it should happen now?
543:
544: R5: Well, no, you couldn't do that, we don't need to harvest any more than trumpeter swans.
545: We don't need to mine more gold.
546: We don't need to extract any more herring out of Lake Superior.
547:
548:
549: I: Why log the Boundary waters when you can bring in logs from Ontario?
550:
551: R5: Why log the Boundary Waters?
552: Because we'll have a healthier forest.
553: I mean there's certain areas you could select cut, certain areas to clear cut.
554: I mean, if you don't do that...all right, it doesn't need to be harvested, you don't need to do that at all, never cut a tree down in the Boundary Waters, and then when the 4th of July storm comes, the '76 drought, and the Yellowstone fire, let's make sure it shows up on no radar screens, it's no news for someone to write their thesis on.
555: I mean, how do you use that resource?

556: Do you leave it alone, let it take its course?
557: And with six billion people on the planet, I'm saying you can't do that because that's wasteful.
558:
559: I: What are we loosing by not logging, by mismanaging the Boundary Waters?
560:
561: R5: The opportunity for the history books to write we were good stewards.
562: We will consume all those resources.
563: You are not going to let your children starve, you are not going to sleep in the cold.
564: We, people on planet earth are going to consume all the trees, all the herring.
565:
566: I: But why extract in wilderness?
567: Why not have some areas where nothing is extracted?
568:
569: R5: You don't need to harvest any trees out of the Boundary Waters, but then don't make any big deal out of it when they blow down or a drought takes them out or they burn.
570: And the only reason we do that is so the history books say this generation was good stewards, they perpetuated green on planet earth several thousand years.
571: You would do a better service to the environment if you used the resources intelligently.
572: And you always you have to preface it by saying there's six billion people on this planet that consume things.
573: Ontario's full of trees.
574: We haven't cut in Ontario for quite a long time.
575: White tailed deer were never here.
576: They followed the loggers up from Wisconsin.
577: There were moose here, woodland caribou, there's still moose and woodland caribou are rare but they are here.
578: Why harvest those trees?
579: Because there's six billion of us on this planet consuming resources.
580: You wouldn't have this great division of environmentalists and loggers.
581: Loggers are your neighbors, loggers are your buddies, you go to church with them, teach your kids how to play basketball, they're not bad people.
582: I would advocate for the loggers to cut all the trees down on planet earth and when they cut down the last big tree, let them stand on that stump and raise their finger and point it right in your eyes and say you made me and mandated that I cut down this tree.
583: They don't cut down trees for any reason other than to fill our need.
584: Do you have a household without paper towels?
585: Would you consider going to the dump to find 2 x 4s to build a dock.
586:
587: I: I'm not arguing that logging isn't necessary, but why in the Boundary Waters?
588:
589: R5: The only reason you log the Boundary Waters is so the history books say you were a good steward.
590:

591: I: You're building a house or a cabin out of salvaged timber?
592:
593: R5: We're building a year-round house, 1,500 square feet, stick built house.
594: This isn't it.
595: This is a house I built for a client a number of years ago.
596: If I was to add some credence to my conversation I would say that we're building our new home, our retirement home out of salvaged logs that we collected and we got logs from Burnside Lake, Jasper Lake, Moose Lake, Highway 1 and some of them were splintered junk, cut them up for the property owner, said here just burn them in your fireplace.
597: Didn't have any marketable value.
598: It's not a perfect world.
599: I toil all day long sometimes just to snake out 3 or 4 nice pine trees, send them through the mill, send them through the planer and you've got this gorgeous board.
600: That little stand, that's not a very good example but that little stand that the computer's sitting on, that's trees that came from that storm.
601:
602: I: And what does it mean to you that they're from that storm?
603:
604: R5: Well, I've always said that building your house out of storm damaged trees, if you take that information and a dollar, you can get a cup of coffee most anyplace.
605: It really has no value, except in your soul.
606: There's nothing you can market, there's nothing you can write about.
607: But do you feel better about this house we're sitting in?
608: We cut no trees that had birds' nests in them.
609:
610: R5: Yeah, we had 5,000 or 6,000 board feet of lumber already stacked and drying before the 4th of July.
611: Those trees came from wind or somebody putting in a road.
612: Trees were already down and that same poetry soft heartedness.
613: Now I'm talking the other side of the coin.
614: I don't want to cut down trees that have birds' nest in them.
615: What I'm demonstrating is you don't have to if you're paying attention.
616: I've got hundreds, I've got thousands of things that I use, that are functional that came straight out of the dump.
617: You see this piece of glass right here that your tape recorder's sitting on?
618: I carried that from the Mississippi River out of a dumpster down through downtown St. Paul, downtown Minneapolis, what 15 blocks, 30 blocks.
619: If I hadn't done it it would be in a landfill.
620:
621: I: So that glass has a special meaning?
622:
623: R5: The doors in our house I salvaged out of a dumpster.
624: Our kitchen sink and our hot water tank, windows, our stove...this country is so wasteful.

625: When they write that history book, I'm looking at our dump, we get a black mark that will stay with our generation…(END OF TAPE)…